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PART FIRST.

ORIGINAL COMMUNICATIONS.

The substance of some Remarks made before the Columbus Scientific Association, on Ethnology. By J. DAWSON, M.D., one of the Editors.

Mr. President:—I was appointed at the February meeting of this Association, to read a paper on the subject of Ethnology.

The term literally signifies a discourse on "*nations*," from "*ethnos*" and "*logos*." It is used, however, to embrace every thing pertaining to the Natural History of Man—Man as an intellectual and moral being, and Man as an animal—his relations organically to others of his race, to inferior animals, and to the atmospheric and terraqueous influences with which he is surrounded.

An investigation of this character, it is easily seen, necessarily involves a great length of time, careful observation of nations—how they have been affected by surrounding circumstances, and what appears to be the status, moral and intellectual, of each one, in its primitive normal state.

It is certainly a difficult task for an individual, however gifted, to stand among the members of his own race, and carefully survey and weigh the race peculiarities that surround him, and from which he himself is not exempt. How much more difficult then, the task, by all the means within our reach, of estimating the characters—moral, physical and intellectual—of all the races or nations of the earth. This is often undertaken, and although the results are occa-

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sionally much alloyed with error, yet many of our most practical and comprehensive views are thus obtained.

Mankind may be investigated either by their *structure* or their *actions*—their national anatomy or their national physiology. The former is our method of investigating the nature of inferior animals, the vegetable kingdom, etc. So valuable, indeed, has it been to natural history that zoölogists have had no hesitancy in pronouncing by it upon, not only the habits of the living animals, but even upon those found in the fossilized state, and now extinct. Structure is really inseparably connected with function, and is the key to it. A principle, therefore, universal in its application, is, that differences in structure give rise to difference in function. The slightest variation in an organ, an apparatus, or an organism, will be perceivable in the movements of the animal—in its physiology.

To this principle, there seems to be great reason to believe that man is just as amenable as any other animal. Although all of the races seem to be constructed after the same general pattern, yet the most superficial observer recognizes individual differences—differences that separate them as widely from each other, as the more degraded of them are separated from the most anthropoid of inferior animals. The supposition has for some time been increasing in popularity, with those capable of correct thought, that it is to the diversity of physical organization, more than to any thing else, that should be attributed the differences which obtain among nations, in regard to science, political and religious institutions, art, etc. For example, some nations are progressive, appear all the time to be traveling upwards, are not satisfied without a high order of civilization, a monotheistic form of religion, and culture of the intellect to its utmost capacity. Others are non-progressive, do not wish to depart from primitive customs, are satisfied with the patriarchal form of government, adopt the polytheistic form of religion, make but very rude efforts in the way of the arts, and have but few wants that rise higher than the stomach. We repeat, it is a growing belief that such race peculiarities are the result of physical organization.

The inquiry before us is not entirely modern, and it may not be out of place just here to say something of its history. Ethnology was regarded as being worthy of attention by the earliest of the philosophers. We are told that Thucydides, the Grecian historian, treated of man in his moral and political aspects, and gave sketches of the manners and migrations of the early Greeks. Herodotus, in

recording the history of certain nations, gives also their physical appearances. Plato, Aristotle, and Hippocrates discuss the influence of climatic agents on man, and his relations to the inferior animals. Latham observes that the *Germania of Tacitus* is the nearest approach to proper Ethnology that antiquity has supplied. Linneas, Buffon, and Cuvier have scattered remarks on the physical characters, to a certain extent; but neither of them investigated the points, with any accuracy, that seem to indicate, with most certainty, physical diversity.

The circumstance that man stands at the head of the animal kingdom, mentally and morally, produced a conviction among zoölogists of early times that he was unique, and not properly within the scope of zoölogical inquiries. This feeling was in the mind of Aristotle, the founder of Natural History as a science. Barboncois, Ray, Pennant, Brissau followed the learned Stagirite in isolating man, and ignoring entirely his animality. It is true that Linneas, under the title of Anthropomorphia, has brought together the genera *Homo* and *Simia*, and that Cuvier, in his *Regne Animal*, has a recognition of the zoölogical relations of man; yet the investigation of him, his relations to natural laws, or, in other words, the science of man in general—*anthropology*—and the differentia of nations—*ethnology*—have had but a very imperfect consideration at the hands of any one, until about seventy years since—the time of Blumenbach.—J. Aitken Meigs, M.D.

Have all the Races originated from Adam and Eve?

The question of the unity of origin of the races, is one not easily settled in the present state of our knowledge. The affirmative is supported by those who take the Mosaic account of the creation, as being true in a literal sense, and also by several cosmographers of learning. The negative, viz: the races are of diverse origin, is, perhaps, the most generally believed, by those who have made the subject a matter of study. It should, however, be recollected that it is by no means susceptible of proof. The evidence bearing on it is, in all respects, imperfect. Profane history is silent on the subject; pretends to no knowledge in regard to it. No nation, indeed, has transmitted to us a single word as regards its origin—whether of the Adamic stock, or an autochthon of the country where it exists. Nor has any thing yet been discovered on monuments throwing any light on the subject. Champollion, Dr. Young, and Rosselini have successfully interpreted the writings on the monuments of the

most renowned nation of antiquity — the Egyptian — but from whence the Egyptians came, or the length of time, even, that they have been inhabitants of the country, are questions that we have no means of solving. The cronologers of that country tell us that the people had a government thirty-six thousand years ago, in the valley of the Nile—how much longer they pretend not to know—but it is not said whether the nation is indigenous or exotic. We are in the same darkness with reference to all the nations of the earth—the Chinese, the Hindoo—two nations remarkable for culture—the aboriginals of America, the ancient Britains, the Negroes of Africa—are all alike ignorant of their origin; do not know whether they were created on the soil they are occupying, or whether they are severally strangers in foreign lands. Those who write history for us, found these nations where they now are, not only without the ability to tell any thing about their origin, but without the ability—even the more intelligent of them—to communicate, in a reliable manner, any fact, phenomena or event that happened six hundred years before the birth of the Savior, or twenty-five hundred years ago. Humiliating, indeed, as it may seem, history beyond this period is worthless.

So inattentive, therefore, have been nations in regard to their origin, that, with the exception of one—the Jewish—we are without any data; and this one seems not to have been favored with a historian, or human archeologist, until some twenty-five hundred years after its reputed commencement.

History failing to throw any light on this subject, a solution has been attempted by other and very different methods. Those engaged in the study of natural history, have ascertained pretty positively, that animals of *different* species are not prolific beyond the first cross. A hybrid, it is said, is produced that is sterile—a well known example of which is in the ***Mule.*** It is believed that nature has established the sterility of hybrid animals by an organic impediment. Taking the sterility of the offspring of animals that are of different species, as a truth, it is contended that mankind are all of the *same* species, because all of the races can mix, and produce prolific offspring that is capable of becoming a separate race, with all the powers and forces of the primitive stocks—a race, in short, capable of perpetual reproduction. Observation has been directed, of late, to this subject, with some care. And although we are not prepared to state that any conclusions have yet been matured per-

fectly, a good amount of information has been collected. The instances of mixture of races, are numerous. We have only space to notice some of the more important. The *Mulattoes* came from the Whites and Negroes; the *Griquas* from the native Hottentots of South Africa and the Dutch colonists; the *Cafusos* from the Indians of Brazil and Negroes; the *Papuas* from the Malays of New Guinea and the Negro.

In each of these cases, the progeny resulting from the parent stocks is prolific to a certain extent, but not to the extent of maintaining a permanent existence; or, like the parent races, of being able to perpetually reproduce itself. The Mulattoes, the race with which we are best acquainted, run out at the third, or, at the farthest, the fourth generation. The progeny resulting from the Malay and African, or from any variety of the yellow race and African, seems to possess a greater degree of durability, but even here, it has not the stamina, as far as observation now extends, of either of the races giving rise to it, and sooner or later decays.

The facts therefore, as far as they go, instead of warranting the assumption that the races, on mixing, are all prolific—all capable of reproduction, in the true and full sense of that term—seem to indicate that those most widely separated, as the Negro and White, are only partially prolific. Their progeny is prolific, *inter se*, to the second and third generation, and after that, sterile. Though not hybrids on first cross, they become so. The argument, then, that the races are all of the same species because they, on mixing, are prolific, is defective, being only about half true. The hybridity test, therefore, amounts to but little, when carefully examined.

Prof. Agassiz has given some attention to this "unity of origin" question, and his views have been looked upon, by those acquainted with his capabilities for cognate inquiries, with great deference. He has been quoted as favoring both sides of the question. The *monogenists* claim him as favoring their side of the question, while the *polygenists* think he is a thorough diversitarian. We will hear him:

"The *unity of species does not involve a unity of origin, and diversity of origin does not involve a plurality of species.* These are two distinct questions, having almost no connection with each other."

Prof. Agassiz goes on to state it as his belief that men did not originate from one common stock, but from a number corresponding to what we see in the physical distribution of plants and animals.

This, however, in his estimation, does not prove that they are of *different* species, and, as a consequence, he suggests that, morally and intellectually, they are of the same species—or rather, humanitarianism considered, mankind are, so far as species are concerned, identical.

We have no disposition to call in question the views of one so learned in zoölogy, but zoölogists are not always archæologists. No one better than Prof. A. is aware that difference of origin—that is, origin under different physical conditions—would be likely to be attended with a difference in structure, or other attributes. This is true of plants, it is true of inferior animals, and we should have, *a priori*, supposed that it would have held true in relation to men. Men, it seems to us, in hyperborean regions, require an organization not exactly like what is possessed by those residing within the tropics. Is the female Hottentot identical in structure with a Caucasian female? Nor do we see any point in the remark touching morality, intellect, etc. In these there is similarity, but we have failed to discover any thing like identity. One race, throughout all time, is progressive—another passive. The one, since any thing has been known of it, has been in a civilized state—the other has always been in heathenism.

Prof. A., it seems to us, has not illuminated this subject very much. Why should it be expected that he could? It is one that is lost in the darkness that surrounds the beginning of the world. We are unconscious of our individual origin; why should a nation be conscious of its? Nothing is, then, more idle than an attempt at the positive solution of this problem. There are many, of good powers of thought, who are incredulous, but are unwilling to say any thing that would have a tendency to disturb the faith generally reposed by Christians in the Mosaic account. There are others, who support Christian institutions, but who think that the Scriptures warrant the belief in the existence, at the time the *race Adamique* was created, of other races.

We have thus passed very hastily in review, this *unity* controversy. Nothing, however, is more obvious than that proper views concerning it must grow out of other and more primary inquiries.

Do the races of mankind differ from each other physically? Do they differ from each other morally and intellectually? If such questions are decided in the affirmative, a presumption—nothing more—is raised that they may have had different origins.

However strongly appearances may contrast, a sentiment found in the New Testament teaches, it has been alleged, that out of one kind of material all the nations of the earth have been made. Here is the passage: "And hath made of *one blood* all nations of men for to dwell on all the face of the earth." We have it suggested by the very highest authority, that the word "*blood*" in this passage is an interpolation. Suppose, however, that it is not; it is evidently used in a figurative sense. It is simply a *metonymy*, where a part is put for the whole. We have it said that Adam was created out of the *dust* of the earth — a *metonymy* where the matter into which the body is ultimately resolved, is put for its proximate principles, or the chemical elements of its composition. Greek scholars tell us that the passage in question is properly rendered thus, "He hath made out of *one* all the nations," etc. We dismiss this subject without further remark, except that the Scriptures were designed, it seems to us, to unfold the most perfect and beautiful system of religion that the world has ever seen, but not to furnish information on scientific questions.

The question of identity of structure not then being solved by the Bible, in a way that is at all satisfactory to those most conversant with the original text, we must invoke the light of science.

Almost every part of the physical structure of the races has been made, at some time or other, the subject of investigation. Scientific examination of the differences, that from a cursory observation obtain, is rather, however, a modern enterprise. Although the ancients have recorded, by their actions, their belief in the doctrine that there are superiors and inferiors among nations, and that some are adapted to one kind of climatic condition, and some to another, they have left us no labors on the differential anatomy of nations.

The osseous frame-work—the skeleton, from the supposition of its superior importance in revealing differentia, has received most attention. Daubenton is among the first of the writers on the bones. He called attention to the various positions of the foramen magnum occipitus in the races. Owen, of London, has recently done the same thing. Camper investigated the "facial angle," and identified his name with it. John Hunter wrote his inaugural thesis on a kindred subject Cuvier called attention to the superfices of the cranium and face in man and the inferior animals. Blumenbach has written his work, *Decades Craniorum*, over a collection of sixty five skulls. On cranial peculiarities, he divides man into five types. Morton has written on the cranium, and has, among other things, called attention to his mode of estimating its capacity by cubic

inches. Pritchard wrote his Crania Egyptiaca in 1844. Nothing, more than hasty conclusions or crude generalizations, is calculated to retard the real progress of a science yet in its infancy. The ethnological inquiry, therefore, in its present stage, should be carefully guarded. From, however, the amount of labor bestowed on craniology, a proposition or two may be ventured.

1. That cranial characters constitute an enduring basis upon which to establish a true classification of the races of men.

2. That the value of such characters is determined by their constancy rather than by their magnitude.

3. That these characters in the aggregate constitute typical forms of crania.—J. Aitken Meigs, M.D.

These cranial characters relate to the *size* of the cranium, and its *form.*

We have time to pass in review but a slight portion of the labor of those who have occupied this field. Cuvier and Morton classify the races on the *size* of the cranium. Cuvier, to ascertain the size of the brain, measured the area of the cranium and face. He divides man into three stocks—Caucasian, Mongolian and Negro. He found the area of the cranium largest in the *Caucasian*—smallest in the ancient Peruvian and Negro. He also found the area of the face in the Negro to be greater than in the Caucasian.

Dr. Morton, who, perhaps, possessed, at the time of his death, the largest collection of crania in the world, divides mankind into *five* races. Recognizing the long established principle in physiology, that the brain is the seat of the mind, and that it is to variations in its size, texture, etc., that should be attributed the moral and intellectual diversity of the races, Dr. Morton called attention to the cranial cavity, and adopts a mode of measurement of the same by cubic inches. Applying this test to his large collection of skulls, it was ascertained that the Caucasian group had a mean internal capacity of 93 cubic inches; the Mongolian of 87; the Malay of 85; the Negro 82; Australian Negro, 75; the Toltecan, (ancient Peruvians and Mexicans,) of 80. Between the Caucasian skull and the Australian Negro, there appears to be a difference of 18 cubic inches; and between the Caucasian and Toltecan a difference of 13 cubic inches. To those who think there is any thing in quantitive anatomy, results of the character just noticed, are significant.

Camper, Blumenbach, Pritchard, Owen, rely mostly on the *form* of the skull, in making out classifications of men. As indicative of the amount of intelligence or capacity possessed by a race, or fam-

ily, Camper proposed the "*Facial Angle.*" This is displayed by two lines—one from the opening of the ear to the base of the nose, the other from the most advancing part of the forehead to the most protruding part of the upper jaw bone. Viewed in profile, the head and face, by this method, gives an angle that varies in different nations, and among inferior animals. Nations that have reached a high grade of civilization, possess a large "facial angle"—those that are uncultivated, have a small one. The Greeks, in the age of Pericles, had a facial angle of 90 degrees. The Caucasians have the largest—the Soudan population the smallest. In the latter, it is often not over 65 degrees. Perhaps the mean of the facial angle for the white race, would be 85 degrees; the mean for the black race, including the natives of Australia, 70—difference between them, 15 degrees.

More especially on the *shape* of the skull, Blumenbach and Pritchard have had their attention fixed. For ascertaining the breadth of the skull, and the projections of the face, the former proposed the "norma verticales." Says he, "The best way of obtaining this end, is to place a series of skulls with the cheek bones on the same horizontal line, resting on the lower jaws, and then reviewing them from behind, and fixing the eye on the vertex of each, to mark all the varieties in shape that contribute most to national character." According to this method, all the tribes of the earth are thrown into three great classes—those having the head and face of the *oval* or *elliptical* form; those having it of the *pyramidal*; those having it of the *prognathous.*

The *oval* form of the skull is so named because the conformation of the face and forehead is such as to give the face an oval shape. This form seems to be regarded as the most symmetrical—no undue prominence or depression. The head is round, the forehead high and expanded, the front teeth are fixed in planes parallel to each other. The head here is of the largest size, and the facial angle is the greatest. This form belongs to the Caucasian race—the most civilized of those who live by the arts of cultivated life. The *pyramidal* form of the skull is at once recognized by the great breadth of the face, large zygomatic arches, low, receding forehead, flattened occiput, flattened nose. The pyramidal form is typically exhibited by all of the yellow varieties of mankind, who in their habits are nomadic, various nations of northern and central Asia, and the Indians of America. It is seen in greatest perfection in the Eskimo.

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Among the rudest and most savage tribes, we have the *prognathous* form of the skull. This consists in a narrow, retreating form of the forehead, a forward projection of the jaws, so that the upper and lower incisor teeth are set at an obtuse angle to each other, and a large development of the cavities for the accommodation of the organs of special sense. The cranial cavity, as we have seen, is smallest here, and the facial angle, owing to the forward projection of the jaws, is very much less than in either of the other divisions. This form obtains, and reaches its greatest degree of development in the degraded members of the African nation, and in the native Australians.

All of these modes of investigating the most important part of osteology—the cranium—with reference to race diversities, bring us to the same conclusions—men differ from each other in the *size* and *form* of the brain, and a classification founded upon these characters may be made that is truthful for the historic period. As long as any thing has been known of the Caucasian, he has had the same cranial characters; and the same may be said of the Mongolian and African.

We might, in this connection, call attention to other portions of the osseous system, but our limits on the present occasion will admit of but the remark, that the principal cranial types are invariably accompanied with peculiarities conforming to them, in other portions of the skeleton.

It is not alone in the solid frame-work of the body that differentia obtain, marking the races, and that dispart them so widely, but in the color of the skin, the hair, odoriferous glands, etc.

The color of the skin is no accident. Whether *yellow* or *black*, it is the result of a secretive apparatus situated in the substance or texture of the skin. The organ being made up of three layers—the *epidermis*, the *rete mucosum*, and the *cutis*—the middle one, or rete mucosum, has the office of separating from the blood a pigment, which is black in the Negro, and yellow in the American Indian. This secreting apparatus in the skin, for giving complexion to the black and yellow races, is as much of an entity, as positive in its existence, and as invariable and uniform in its action, as the apparatus in the eye of all races, for secreting *pigmentum nigrum*. Unless affected by disease or amalgamation, the color of the skin undergoes no change. It is the same in the Indian of to-day that it was when Columbus discovered the continent; and the African

has the complexion now that he had when the Pharaohs governed Egypt.

A distinction of the races has been insisted on, because of the characters that obtain with reference to the hair. The hair of the negro, in appearance, contrasts very strongly with that of the white man. The most trustworthy observations favor the popular presumption that there is a radical difference. In the Negro, the hair is eccentrically elliptical in section, whereas in the European it is circular or oval. The hair of the Negro is crisped and wooly—that of the white man straight and flowing, or curled.

There are other points of equal significance, differentially, as the odoriferous glands, color of the eyes, convolutions of the cerebrum, position and size of the calf of the leg, form of the lips, of the nose, form of the feet, etc., but we pass on.

What we have enumerated with reference to the bony skeleton, or the soft parts, indicating radical diversity of structure, although well understood as having positive scientific value by those competent to the investigation, and although practically made the bases of social and national distinctions, still the subject seemed not to be fully understood and appreciated until since the labors of Alexander Von Humboldt on *Physical Geography*. By common consent, the race diversities that obtain, were attributed, if attempts were made to account for them at all, to food, habit, and climatic influences. As a consequence, much was written on the philosophy of man from the assumed stand-point that he is the creature always of circumstance, but very little on him that was entitled to the name science. How he is organized with reference to the climatic agents with which he is surrounded, is a question upon which the researches of Humboldt are valuable.

It is well known that Humboldt and Bonpland made application to the Spanish government, at an early period in the travels of the former, and obtained permission to travel for the purpose of making scientific observations, on the geology, geography, flora and fauna of Spanish America. They left Madrid in May, 1799, in the vessel Pizarro. The captain was ordered, not only to receive the travelers on board, but to provide a safe place for their instruments, and also before sailing to Mexico, whither the vessel was bound, to touch at the port of Orotava in the Canaries, and allow time to ascend the peak of Teneriffe. On approaching the Island of Teneriffe, the weather was so hazy that the peak was invisible. After landing,

they first visited the celebrated ***dragon tree***, the trunk of which they found to be forty-five feet in circumference. Humboldt considers this tree to be one of the oldest inhabitants of our globe. In aspect, he says, "it forcibly exemplifies the eternal youth of nature, which is an inexhaustible source of motion and life." The ascent of the peak occupied two days. Leaving Orotava, the travelers ascended through *successive circles* of vegetation. Passing from the *cocoa palms*, on the sea shore, they successively encountered, in the order here stated, the *chesnut, heath, fir*, and *fragrant retama* at the base of the crater. These observations by Humboldt, gave him the first idea of those researches into the geographical distribution of plants and animals, which entitle him to rank as the founder of this branch of cosmography. The inspirations of Teneriffe were confirmed on the slopes of the Andes, and, years afterwards, on the dreary wastes of Siberia. He perceived that the inorganic forms of nature, such as mountains and rocks, resemble each other in the most distant parts of the earth, while the organic forms, plants and animals, vary according to climate, character of the soil, altitude above the sea, and other local influences.

We repeat that, notwithstanding all the initiatory steps taken by Blumenbach, Camper, Pritchard, etc., for inaugurating an ethnological inquiry, but little real progress was made until the attention of the world was called to the great law—the physical distribution of plants and animals—the distribution according to climate, as set forth by Humboldt If it is susceptible of proof that plants and inferior animals are not cosmopolites—do not flourish equally well in all latitudes, but are adapted to "natural provinces," or zones—a very strong presumption is raised that the same is true with reference to the *genus homo*.

From the manner in which mankind have been, and are now distributed over the surface of the earth, the view just mentioned receives some support. In the *temperate zones*, we have the Caucasian stock—the stock distinguished for large heads, large cranial cavity, large facial angle, the greatest development of the intellectual and moral faculties, for cultivation of the earth—for every thing, indeed, pertaining to sociology; and, we may further add, a race characterized, in all ages, by its predatory proclivities, its tendency to encroach on the rights of others. Within the historic period, this race has been confined mostly to the northern hemisphere, and between the fortieth and sixtieth parallels of latitude. Its pliability

of constitution admits of migration either north or south, some twenty-five or thirty degrees from its geographical center. Such changes, however, if made permanent, are sooner or later followed by mental and physical degradation and death.

Around the Arctic ocean, we have the type of humanity known, in North America, as the Eskimo, in Northern Europe, as the Laplander, and in Northern Asia as the Samoiede. This race, whether found in Europe, America, or Asia, is made up of the same ethnological elements. In it we have the medium sized head, the pyramidal form of skull, the square face, and the brownish yellow skin. It is further characterized by Nomadic habits, and the patriarchal form of government.

Within the tropical regions, we have the Negro race. This is true of most of the tribes of Africa and Australia. The race, as far as any thing can be known, reaches its highest development in Soudan or Australia. We have here the *prognathous* skull, the smallest cranial cavity, the most diminished facial angle, the largest face, the black skin, and crisped hair.

Now while the three leading types of mankind, seem to be the occupants of the torrid, frigid and temperate zones, there are other types—perhaps modified forms of the Eskimo, as the Malays and American Indians, whose geographical range is much greater. Still, the great natural law, that a race of human beings, like tribes of inferior animals, and families of vegetation, has its realm, or province, in which it flourishes, and to which it is adapted, has but few exceptions.

We have some facts bearing on this subject, that partake of a medical character. Climate is frequently invoked in the cure of disease, and it is axiomatic that what will cure disease, may, under other circumstances, produce it.

Is, then, man a cosmopolite? Can he migrate with impunity through all latitudes. Can the Eskimo leave his perpetual winters, his snow plants, (Palmellacæ,) his dogs and sledges, and take up his residence in Soudan, or on the banks of the Congo or Zambesi rivers, and there "multiply, and replenish the earth?" Or can the African migrate to Hyperborean regions, construct snow houses, and live and thrive in them with the Eskimo? Are, indeed, there any facts in history indicating such pliability of constitution in either race?

Observations have not accumulated in sufficient abundance to set-

tle positively such questions. What are on hand, however, favor negative answers.

After the war with America, England dismissed quite a number of colored people from her army and navy, and colonized them on the Western coast of Africa at Sierra Leon. After spending £3,000,000 in the attempt to get a permanent foothold for the colony, the unhealthiness of the climate to Europeans was such that the enterprise by the agency of the white man was abandoned as impracticable, and has been committed to the hands of the natives of the country. The English troops necessary to protect the colony from the native savages are now all withdrawn, and their places supplied with men of color. Americans have a colony at Liberia, established in 1821. But Yankee constitution, with all its power and pliancy, has proved unequal to the climatic emergencies of the country. So great has been the mortality among the officers of the colony and those who attempted to penetrate the interior, that, like the English, we have given up the work as impracticable.

Portugal, in latitude averaging about 40°, sent, at an early day colonists, who settled on both coasts of South Africa. As they are now found by the traveler, they seem to be dwarfed, morally and physically, and it is supposed they would long since have *run out* had they not been continually replenished from the mother country. The Portuguese are said to possess greater ability in adapting themselves to climate than any other nation—still they wither in Africa.

The French migrated across the Mediterranean to Algiers, only a few hundred miles; and in 1830 the country was entirely subjugated, and a colony of French subjects planted on ancient Numidia. The short time that the colony has been in existence has demonstrated its unprofitable character, human life being taken into account. The annual mortality of the French colonists is now 7 per cent. It should be recollected, also, that the French expose themselves as little as possible to the climate. The drudgery, field-labor, etc., has always been performed by the native Arabs and Kabyles. Were the French to labor the mortality would soon rise to a point threatening speedy depopulation. Understanding this the mother country, for the purpose of sustaining the agriculture of the colony, engaged in the "Cooly Trade," an attempt to get laborers better adapted to the climate.

The triumphant war of 1756 gave England a decided pre-eminence in India over other European powers. About the same time

she began to acquire territorial possession in Hindoostan. These conquests have made it necessary, for more than a century, to keep a standing army recruited at home in order to maintain her dominancy in the distant country. With the effects of the climate of India on British officers and soldiers we have now about one hundred years of experience. At home these officers and soldiers were north of the fifteenth parallel of latitude; in India they are south of this thirty degrees. What now have been the effects of this change of climate on the English constitution. An officer of the East India Company, with a large experience, says that English regiments die off prematurely, and that acclimation is impossible, that it is only another name for shriveled muscles, impoverished blood, etc.; that long residence affords no immunity, but, on the contrary, the mortality among officers and soldiers is greatest with those who remain longest in the climate. The annual mortality varies but little from 6 per cent. Marriages with British females have always been encouraged, yet the oldest purely English regiment, the "Bombay Tufts," has been unable to raise any children.

Since any thing has been known of Egypt, which as all know is between the twentieth and thirtieth degrees of north latitude, no European, or even Turk, has ventured to perform, to any extent, field-labor. The Fellahs, the true descendants of the ancient Egyptian race, are the working-men of the Nile. Negroes have always been in the country, but they incline entirely to menial service, and are less healthy than in Negroland. The Copts, a mixed race, are a worthless part of the population, inhabiting now, mostly, the upper part of Egypt. The Mamelukes, a turbulent, war-like race of white Caucasians, as is well-known, were sold to an Egyptian king as slaves. They finally succeeded to the political power of the country, and after ruling for nearly three centuries, Mohammed Ali subdued them. They are an exotic race, and are now fast decaying from the influences of African climate.

Dr. Livingstone, who has lately instructed us all on South Africa, tells us that during his stay of sixteen years in that country, he suffered thirty attacks of fever. As a pretty fair index, to the influence of the South African climate on Europeans, we give the following, which occurred on the eastern shore of the continent, near the mouth of the Zambesi river:

"A Hamburgh vessel was lost near the bar before we came down. The men were much more regular in their habits than English sailors, so I had an opportunity of observing the fever acting as a slow poison.

They felt "out of sorts," only but gradually became pale, bloodless and emaciated, then weaker and weaker till at last they all died except the Captain, more like oxen bitten by *tse-tse*, than any disease I ever saw."—LIVINGSTONE.

We have within the limits of the U. States elements of a physical character which, if properly invoked, cannot fail to shed some rays of light upon the subject under consideration. Our boundaries, from Maine on the north to Florida on the south, extend through more than 24° of N. latitude, covering an area of about 3,300,000 square miles—traversed by two great systems of mountains that reach in some places an altitude of 10,000 feet above the level of the sea, and by rivers of unrivalled magnitude—almost every circumstance, or meterological condition, is furnished by which to assist in unfolding the relations of man to the agents that surround him.

The ethnological programme is a short, and, to some extent, tragic one. A representative of the Caucasian race discovers the continent, then returns to Europe and makes a report on the soil, climate, and character of the autochthon population. Thereupon, all the leading branches of the race, obeying their instinctive impulses, commence the work of migration; and no sooner on the continent than they become impressed, like Abraham with reference to Canaan, that the land was made for them and their posterity. At first they beg quarters from the natives, then coax them out of the necessary territory for a foothold. This attained, the work of extermination is at once inaugurated, and so thoroughly has this been carried on that we can scarcely now find the skull of an Indian for craniological researches.

The place of the Native Americans is now occupied principally by two branches of the Caucasian family, the Celtic and Germanic; and by no inconsiderable number of Africans.

Within the short period of the settlement of the country, the two white branches have demonstrated that their capacity for agricultural labor is confined to the northern states, to the climate of which their constitutions seem to be adapted. The climate here has its analogue in the one from whence they emigrated; and the statistics of mortality show that their longevity differs but little, if at all, here from what it was at home.

What the exact capacity of Germans and Celts for labor in the Southern States—for field labor between the 24th and 36th degrees of latitude, is a question that will need time for its complete solution.

Either from instinctive impulses, or from actual experiment on *a priori* decision of the question has been made; and as a consequence Africa has been put under tribute for laborers with which to cultivate the soil. The white man in the Southern States, like formerly in the West Indies and now in Algeria and Lower Egypt, has constituted himself a mere cypher so far as digging the earth is concerned, depending entirely upon the labor of an exotic race for which socially he has no sympathy, but on the contrary a most invincible repugnance. The white man has taken the relation, indeed, of master; the African that of a slave laborer.

Here, then, we have two races, strongly contrasted, living together in the same climate. The one in a position favorable to the protection of health; the other exposed to whatever there is in the climate calculated to shorten life.

Notwithstanding this social advantage of the position of the white man, he fails to live out the length of his days. His life as compared with his own race, in the Northern States, is shortened. The white race, it appears, attain their highest intellectual and physical development, and most perfect health, above latitude 40° in the Western, and 45° in the Eastern Hemisphere.

Pritchard remarks—"The warmer the climate, other circumstances being equal, the shorter is the average duration of human life." This seems to have a striking application to the white race. Setting aside malarial influences, the white man lives longer in Boston or Scotland than at Calcutta, Bombay, or Jamaica. At Bombay, the annual mortality of Europeans, in 1815, was 1 in 18; in Great Britain, the annual mortality, from 1800 to 1804, was 1 in 47. Indeed, Pritchard's observation is confirmed by all the migrations of the Caucasian race to Equatorial regions. The statistics of longevity, in the Southern States, are imperfect with reference to the white man. Enough, nevertheless, is indicated by the influence of the climate on fresh immigrants from European countries, to inspire a well grounded suspicion as regards salubrity. The malarial regions are deadly occasionally upon even old residents, and always so upon new comers. But even in localities elevated and non-malarial, the ruddy complexion of the New Englander fades, his muscles shrink, and a general languor takes possession of his body.

The imperfect data before us, then, seem to favor, very unmistakably, the decay of the white race in the Southern States. This natural law is, to some extent, modified by the avoidance, as much as

possible, on the part of the planter of labor, and by his removal during the summer to the non-malarial localities. But what more than any thing prevents the full expression of the natural law of depopulation, is the draughts made upon the northern states. The stimulus of gain is something the Yankee nation has never learned to resist, and until this lesson is taken the south will most likely continue to draw upon the north for supplies of flesh and blood.

What now are the effects of the climate of our Southern States upon the African race? It is now about 240 years since the first importation of men of this race took place, and we now have in the country about 4,000,000.

From a table showing the number of deaths, for each year, among the colored population of Charleston, S. Carolina, we find that the average mortality for a period of ten years is, 1 in 43-6. And while the whites, in a nearly aggregate population, give but 15 deaths between 90 and 100, the black population for the same period, of ten years, give 101 deaths between 90 and 100 years of age. Again, while the whites give but 1 death, for the same period, above 100, the blacks give 38 deaths above 100.

The average annual mortality for the whole negro population is set down in the census of the U. States, taken in 1850, at 1 in 60. This is undoubtedly below the proper mark. It goes, however, to show, in connection with State statistics which are more reliable, the great duration of life of the slave population in the slave holding States. Proceeding north, where statistics are reliable, the duration of life of the black man diminishes. In Boston the annual deaths of the colored population are put down at 1 in 20; in N. York they are less, and still less in Philadelphia. This is about the mortality, as we have seen, of Europeans in India, at Calcutta; or on the western side of the peninsula, at Bombay.

We know of no data by which to estimate the annual mortality of the African race in Soudan or Southern Africa; but, other things being equal, it is probable that it is less than upon any portion of the American continent.

If it were proper, in the present state of our knowledge, to deduce inferences from our imperfect experience with the effects of climate upon the different races, they would sustain very decidedly the theory of "Natural Provinces" for the genus homo, as well as for the inferior animals and plants. In its natural realm a race lives out the length of its days, and gives an exhibition of its capabilities and

idiosyncrasy. If susceptible of civilization and refinement, of progress in the arts and sciences, the evidence will never fail to make its appearance. On the other hand, if out of its proper geographical realm, it becomes impotent, unhealthy, and sooner or later extinct.

An opinion has reached considerable currency that the tribes of the Mongolian type, in the extreme arctic regions, and those of the European near the Equator, are mentally and physically dwarfed by the climatic influences with which they are respectively surrounded. It is supposed that the Esquimaux is in a state of continual struggle with a stern and rugged nature; and that the native African has all his energies relaxed and crippled by the hot burning atmosphere in which he lives. As a consequence, we find humanitarians being much exercised over what they regard as the hard fate of these races.

We have no disposition to attempt an abridgment of such praiseworthy impulses, but we regard it as by no means settled that they have in reality any foundation. Either climate would be intolerable to us; but is our case the rule for measuring its agreeableness or disagreeableness to others. The African, after a hearty meal, lies down in an atmosphere filled with deadly vapors to the white man, and at a temperature of 150° Fah., and sleeps soundly and sweetly, dreaming, perhaps, over the gastric supplies of the next day; the Esquimaux fills his stomach with oils and animal food, wraps himself up in his furs, and retires to his snow house with his dogs, as well satisfied with the temperature of 40° below zero, as if only at the freezing point. We have no vital statistics in regard to either of these races. We do not know but what they live out the length of their days, just as we do. Their plants and animals die when made to conform to our standard of climatic excellence, and why also would not they? The truth is, these races are just where they were designed to be, and if they are not happy it is their own fault. There is no probability, as far as we can see, that their lives would be lengthened, or their enjoyment promoted, were they to take up their residence within the temperate zone.

We now approach the most knotty part of our inquiry—

Are there any physical agents, which, operating for a series of years, are adequate to the production of the race peculiarities we have had under consideration?

The discussion of this question involves historical research, scien-

tific observation, and zoölogical experiment, to an extent that scarcely leads us to hope, at present, for any thing entirely accurate.

The distinctions, moral, intellectual, and physical, now recognized among nations, are regarded as being due to climate, habits, or to food, or to these combined. The potency of climatic influences is looked upon, by one of the most learned ethnographers, as being in every way competent to account for all the distinctions found between a perfect Caucasian and the most degraded African.

In the absence of the data by which to investigate thoroughly the correctness or incorrectness of such a conclusion, a good degree of caution may be observed in the expression of opinions by those the most competent. All accord to climate the power, if a sufficient length of time is allowed, of working certain changes on all forms of organization, vegetable and animal. These changes, so far as animals, including man, are concerned, have, however, their limits. It is known that Europeans become tanned under a tropical sun, and that the Yellow races grow darker if removed from a temperate latitude towards the equator. The children nevertheless, in both instances, are born with the primitive caste—the acquired taint is not propagated. The dark races, on the other hand, get no fairer by migrating to the north, nor are the children brighter. The physical modifications, including even divergent cranial types, among what are known as mongrels, are due to amalgation, and can always be traced to this, rather than to climate.

The inhabitants of Iceland are of Teutonic origin. They have been in their hyperborean locality for more than 600 years. They have not, however, during this length of time acquired either the olive brown skin, or the pyramidal skull of the Esquimaux.

The Boors of South Africa, another tribe of Teutonic origin have been in their present location for about eight generations. The present generation, Dr. Livingstone tells us, has the original fairness of people of the mother country.

Monumental history has within the present century been invoked with reference to the mutability of races—or perhaps it would be more proper to say, that, incident to the labors of certain archæologists in Egypt, Italy, Assyria, Persia, and other countries, some very valuable evidence has been developed.

The Egyptian, the most renowned nation of antiquity, furnishes some iconographic specimens that were made as early as the third Pharaonic dynasty—or about 5,500 years ago. Sculpturing was

cultivated, as appears by the Egyptians, according to their own style, from the time mentioned until the nation succumbed to Greek influence. During all this time the artists of the country were in the habit of representing on the monuments a number of things. The different varieties of the dog. as the grey-hound and the bull-dog, and the different varieties of birds are figured, all of which look like the dogs and birds of to-day. But few portraits were made of individuals. The race peculiarities, nevertheless, were made to stand out with great fidelity. For example, in the celebrated tomb of Menephthah, the Egyptian king at Thebes, is sculptured *four* types of mankind, the *red*, *yellow*, *black* and *white*. This is generally called the tomb of Belzoni, after the Egyptologist of that name. We have lately had brought to light a relief in the sepulchre of *Darius*, in Persia, on which is sculptured four types, a *Lydian*, *Scythian*, *Negro* and *Chaldee*, designed to represent the four different nationalities subject to this king. These monumental types hewn in the rocks, some of them five or six thousand years ago, are identical with the races they were designed to represent of to-day. The form of the skull and physiognomy of the monumental Egyptian, Scythian, Persian, or Negro, are the same as characterize these types now. Indeed, we possess effigies of negroes drawn by six different nations of antiquity: Egyptians, Assyrians, Persians, Greeks, Etruscans and Romans, which all speak for the unalterable constancy of the negro type. (Pulsky.) The prognathous form of the skull, thick lips and black skin, seems anciently to have been what it is found to be at the present day. The Jewish head in the days of Abraham is the type around which all the heads of this race, it matters not what circumstances it has been placed in, revolve. The long oval cranium, aqualine nose, receding forehead, long distance between the nose and mouth, of the ancient Egyptian characterize the Fellah now in the valley of the Nile.

From the facts adduced, and many more might be given, it seems very improbable that climate has made the Negro black or the Caucasian white. The monumental records are conclusive on the fidelity of race distinctions for a period equal almost to the reputed age of the world. If, therefore, climatic agents have proved impotent for this long period, what reason is there in supposing them capable of ever accomplishing such results.

So far then as physical agents are concerned, there is no probability, from all that can be known, that they have produced the peculiarities which now distinguish the races. We must admit that the

types were created as now found in the different zoölogical provinces; or we must seek for other causes more adequate than climate to their production.

The following we offer as a *résumé:*

1. The *Unity* of species question is one that cannot, by any known means, be solved. A nation, like an individual, knows nothing of either its birth or its death.

2. Diversity of origin, which it is supposed does not imply *plurality* of *species,* seems to be indicated by the geographical distribution of animals and plants.

3. In each of the great geographical divisions of the earth, peculiar types of mankind are found which, in each instance, seem to be physiologically adapted to the locality.

4. The inhabitants of one realm possess *specific physical* characters that differentiate them from the people of other realms.

5. The moral or intellectual status of a race has a very intimate relation to its geographical location and physical conformation.

6. No physical causes are known to which the race diversities which now obtain may be reasonably attributed. Climate is inoperative, except to a limited extent.

7. Monumental history makes it probable that the types of mankind have underwent no change, from any cause, for a period of at least 5,000 years.

Terrence McQueeney vs. *W. W. Jones. A prosecution for alledged Mal-Practice. Tried at the November Term,* 1858, *of Lucas Common Pleas:* E. D. POTTER and LOUIS H. PIKE, *Attorneys for Plaintiff;* D. O. MORTON and J. R. TYLER, *Attorneys for Defendant.* Reported by the Defendant.

Plaintiff claimed $10,000 damages of defendant as a surgeon, for negligence and want of skill in attending him for an injury of the ankle joint of the left leg, and fracture of the same; and also a fracture of the right leg below the knee, which the defendant had failed to discover.

Plaintiff testified that he was run over on the 19th of January, 1854, by a train of cars on the M. S. & N. I. Railroad, he falling on the inside of the track, and the cars passing over both of his legs below the knee, dislocating and breaking his left leg at the ankle

Joint; that the dislocation had never been reduced or set, and that in consequence he was lame, &c. One of the medical witnesses for the prosecution, testified "*that there was a dislocation of the left foot outward upon the ankle, and that it had never been reduced, and that it could have been reduced. That fracture of the fibula just above the ankle joint occurs with almost every sprain, and is a matter of common or frequent occurrence;* he had not seen the patient while under treatment by defendant." Two other physicians were also called by the prosecution, who testified that not having seen the patient while suffering under his injuries, they could not say what were the conditions, and were not prepared to say what could or should have been done.

Previous to the introduction of defendants testimony, his attorneys moved the Court to dismiss the case on the ground that plaintiff had failed to make out his case in law. Court overruled the motion on the testimony of defendant and Dr. Isaac N. Hazlett.

Defendant proved "that three loaded cars had run over both of plaintiff's legs, in a diagonal direction, from just below the knee of the right leg, over the ankle of the left, dislocating the tibia inwards and turning the foot outward. That the right leg *was not broken*, but very badly lacerated, and sloughed for three or four weeks, abscesses forming at four different points. That the left fibula was fractured at about two or three inches above the left ankle joint, and that the laceration and bruises were so great as to indicate the sloughing which subsequently occurred, and communicated with the joint. That defendant then, and repeatedly afterwards, informed plaintiff that if he could succeed in saving his legs from coming off, that the left one would be imperfect, and he must have no expectation of its being anything but crippled.

"That the dislocated foot was reduced and kept in place on a double inclined plane splint, with a foot board; that lateral pressure could not be kept up perfectly on account of the sloughing; that irrigations of tepid water were used continually on both legs for about two weeks, until the violence of the inflammation had subsided. That the fibula did not unite at its broken ends at the end of two and a half months; and that defendant went up, by previous arrangement, at the end of that time to irritate the ends of the broken bone with an awl, for the purpose of exciting such action as would have a tendency to make it unite; that plaintiff's wife aroused the neighborhood, and brought in several men armed with clubs, to resist the defendant in the discharge of his duty towards his patient, and threat-

ened his life if he did not desist; that plaintiff himself then refused to permit defendant to proceed, and said that he would take the risk; that defendant urged plaintiff to consent to the trifling operation, as his own reputation, as well as plaintiff's welfare, was at stake, but plaintiff declined; whereupon defendant declined any further attendance upon him; that the fractured ends of the fibula having failed to unite, and the lateral pressure not being kept up by a splint upon the outside of the leg, the bones would naturally fall against the tibia at their fractured ends, enlarging the articular space between the malleoli, and present the same appearance that now exists, viz: The foot turned slightly outward, and the joint enlarged."

A year and a half after the injury an ulcer appeared upon the crest of the tibia of the right leg, and the bone exfoliated, which it was contended was the surgeons fault—plaintiff having set up in his petition that this had been a comminuted fracture of the tibia, which his surgeon had failed to detect, but to which his informant on the trial failed to testify!

After the case was argued by the attorneys, defendant's counsel asked the Court to charge as follows:

1. That the medical man engages that he possesses a reasonable degree of skill, such as is ordinarily possessed by physicians generally.

2. He engages to exercise that skill with reasonable care and diligence.

3. He engages to exercise his best judgment, *but is not responsible for a mistake of judgment.*

4. That a medical practitioner is not responsible for the result, or does not insure the result.

5. That the patient himself is responsible for all else, if he desires the highest degree of skill and care he must secure it himself.

The Court (Judge John Fitch) charged on all the points as desired except the third point, striking out the word "not," and ruling that he was responsible for mistakes of judgment, illustrating it by saying, *that if a physician were to give a patient arsenic by mistake and death were to ensue, he would be responsible, and the consequences of a mistake of judgment must be taken into consideration by the jury.*

Verdict for defendant.

Ovariotomy—Two Cases. By J. W. HAMILTON, M.D., Professor of Surgery in Starling Medical College.

CASE I. This Case was operated on April 20th, seventeen weeks ago. The patient was Miss W., of Athens co., Ohio, aged 24. A slight tumor was noticed in the left illiac region, about a year previously. This was soon lost in a general enlargement of the abdomen. At the end of seven or eight months the distension of the abdominal walls had become so great as to demand tapping, which being performed 25 pints of fluid escaped, leaving a tumor of some size, in the left hypochondriac region. The sac refilling rapidly was again tapped about the first of March, discharging about half as much fluid as on the former occasion, and leaving a very large, apparently solid mass above and to the left of the umbilicus. As the fluid escaped the internal extremity of the canula was very much depressed.

Our first examination of the case was about the first of April. The patient evidently inherited a slight scrofulous taint. Was emaciated, especially about the face. Menstruated regularly. Aside from the usual effects of the interference of the mass with the surrounding parts, she was in very fair general health. The abdomen was quite symmetrically enlarged, presenting very distinct fluctuation over a large part of its surface. In the left hypochondriac and lumbar regions, however, there was no obvious fluctuation, the indications being rather those of a solid body.

In the performance of the operation we had the assistance of Dr. Geo. Carpenter of Athens, Dr. Reeves of Springfield, Dr. Pullen of Logan, and Drs. Dew, Fuller, and Pratt of Athens co.

A cathartic dose and an enema were given by way of preparation. The incision was from the umbilicus to the pubes, about 8½ inches in length, the patient being in a state of anesthesia. The linea alba was not in the median line, so that our incision fell upon the inner margin of the rectus muscle of the right side. Although the dissection was conducted in the most careful manner, the cyst was not recognized till it was entered. A cunula was then introduced, and the largest sack emptied of 2 or 3 gallons of clear ascitic looking fluid. This left a mass above suggestive of the presence of an immensely enlarged spleen. The openings in the peritoneum and sack were immediately enlarged, so as to admit the finger, which at once recognized fluctuation. The trocar being introduced no fluid escaped. The finger being now used as a director, the presenting

cysts were slit up with a probe pointed bistoury. Their contents being semi-solid, it was found necessary to scoop them out. The tumor being thus very materially reduced in size, the hand was introduced and the adhesions separated without difficulty. The pedicle was of the size of the thumb, and was transfixed and ligated in two lateral halves.

The tumor, including its contents, weighed 30 pounds. More than half the mass consisted of a single cyst; the balance of an aggregation of a vast number of pediculated small cysts, the consistence of the contents of which, was that of calves-foot jelly. The colors were exceedingly various.

A catheter being introduced in the outset, the urethra seemed to be remarkably long, and to curve around toward the left side. In the course of the operation, the uterus and bladder were found to have been drawn upward and to the left, so as to rest in the left illiac fossa.

The external wound was closed by the introduction of 7 or 8 interrupted sutures of silver, carried through close to the peritoneum. The small size of the greater part of the cysts, and the semi-solid character of their contents, rendered the operation somewhat tedious, twenty-nine minutes being occupied in its performance. Morphine was given in liberal doses, and its continued and liberal exhibition provided for.

The after treatment, during the five following weeks, was entirely under the care of Dr. Reeves. The external wound closed at once, but extensive peritonitis, with more or less suppuration supervening, subsequently separated, through its whole extent. After several weeks of grave traumatic fever, the wound again commenced uniting. At the end of 5 weeks it had healed with the exception of about an inch, at its upper extremity; and the case had assumed so favorable an aspect, that Dr. Reeves did not see it for some days. During this time, unfortunately, a portion of intestine became strangulated in the cicatrizing wound and sloughed, giving rise to a fecal fistula. This, however, was not followed by occlusion of the intestinal canal, fecal evacuations per anum not being suspended. This again became the source of great depression and suffering.

We learn, by letter, from Dr. Reeves, dated July 13, that the patient was then rapidly recovering, although there was still some fecal discharge through the fistula.

On retiring to examine the morbid mass, within less than 2 hours after it was removed, that part of the fluid contents which had been

exposed to the air in buckets, was noticed to have a very perceptibly offensive odor, that of sulphureted hydrogen being prominent. In the course of the operation there was free escape of this into the peritoneal cavity, and being quite pasty in character, it was impossible to remove it perfectly. We suppose, that undergoing decomposition from atmospheric contact, the grave fever which followed was a toxic effect of it.

Case II. In the investigation of this case, as well as in the operation, our friend Dr. J. B. Thompson, of this city, was, at our request, associated with us, and in every way bore a full share of the responsibility. We were furthermore assisted by Drs. Anderson, Price, and Black of Guernsey co.; and Drs. Brown and Portney of Tuscarawas.

The patient was Mrs. Neel, aged 47, of New Birmingham, Guernsey co., Ohio. Mrs. N. was the mother of 9 children, the youngest of which was 6½ years old. Two years previously she received a blow from the elbow of a child, which producing severe pain, fixed her attention, for the first, upon a round swelling, in the right illiac region, of the size of a fist. This increased in size, but soon lost its definite outlines. In developing it ascended to the right hypochondriac region, and thence downward and to the left. Fourteen months previous to operation the abdomen was enlarged, so as to lead several excellent physicians to the diagnosis of ascites, for which tapping was performed twice, a pint or two of fluid being discharged on each occasion. For the last few months, previously, the prevailing diagnosis was that of ovarian disease.

At the time of the operation the patient was greatly reduced in flesh, with corresponding impairment of strength and digestion; the stomach was totally incapable of receiving more than 3 or 4 ounces of nourishment; the patient was unable to maintain the erect posture for more than a minute or two; could walk, by the greatest exertion, only from 2 to 4 rods; had not been able, for a length of time, to turn over, or raise herself, when recumbent; and could only maintain this posture for about an hour at a time. The abdomen was very greatly and quite symmetrically distended; its circumference was just four feet, the superior portion presenting distinct fluctuation. The lower two-thirds of its parieties presented elasticity without fluctuation, and were greatly thickened by serous infiltration, especially just above the pubis symphisis. Two or three obscure sulci radiated from the region of the umbilicus. A

diagnostic tapping being performed above the umbilicus, a sharp jet of a few ounces of limpid serum followed. Carrying a director through the canula, elastic resistance was encountered, which gave way under slight pressure, and was followed by the discharge of serum, to the extent of a few ounces, presenting the appearance of strong coffee. In this way several septa were ruptured, giving rise to an equal number of varieties of fluid.

Percussion produced no resonance except in the epigastric, and left lumber regions. The abdominal cavity being thoroughly distended no mobility in the tumor was detected.

Examinations per vaginam and rectum, by the touch and Simpson's sound, indicated everything healthy and natural, except that the uterus seemed to be retroverted. The patient had ceased to menstruate: such cessation was probably independent of the ovarian disease.

The evidently compound cystic character of the tumor—its very great size and rapid growth—its recent origin—the absence of satisfactory proof of former peritonitis—the rapidly increasing interference of the mass with respiration, digestion and nutrition, and a rapidly approaching fatal termination, were assumed as sufficient grounds for deciding in favor of the feasibility and necessity of an extirpation.

The patient being anesthetized, an exploratory incision, an inch long at its bottom, was made just below the umbilicus. Although firm adhesions were found, it was determined to proceed with the operation. The parieties were at once laid open from a point several inches above the umbilicus to the pubes. The serous effusion was such, as that the lower part of this was three and a half inches in thickness. On passing through the peritoneum, a great number of cysts, from the size of an orange down, presented themselves. These were freely divided with the knife as fast as they could be reached. The separation of the surface of the mass was proceeded with as rapidly as the slowly diminishing size of the tumor would admit of the advance of the hand. Thus the parietal peritoneum, the omentum, and transverse colon were successively separated. Getting the hand around the mass, it was found free from attachments posteriorly. As it descended it encountered a firm, smooth, serous reflection that at once was recognized as impassable. Introducing the other hand from the left side, and carrying it towards the same point, to our very great relief, we passed smoothly behind,

without opposition. Dipping into the pelvis, we found it occupied by a single cyst, with only moderate attachments. The pedicle was small, but very vascular, and so spread out as that it was deemed best to secure it by two transfixions, and an equal number of double ligatures. An effort was made to bring the pedicle out at the lower extremity of the incision and fix it there, but owing to the thickened condition of the parieties this could not be effected; accordingly, the threads only were brought out. Twelve interrupted sutures were introduced. The latter part of the operation was performed amid the most serious apprehensions for the safety of the patient. At the time of leaving, five hours afterwards, there was quite complete reaction.

As the bowels were loose and the rectum empty, from a recent cathartic dose, no preparatory treatment was used, except a gr. and a half of opium, an hour before the operation. An equal quantity was given on its completion. It was found necessary, in the course of the operation, to extend the external incision to the ensiform cartilage, making it, in the distended state of the abdominal parieties, full twenty inches in length. All the abdominal viscera were freely exposed and handled. The liver was found displaced, the right lobe falling down far into the right lumber region. The left half of the diaphragm was left apparently without support, the heart playing upon and shaking it in a frightful manner. The patient, at this stage, reminded one, very forcibly, of an eviscerated subject, upon the dissecting table.

Our notes, from the date of the operation, are in the form of letters from the attending surgeons, Drs. Anderson and Price.

"For the first two weeks after the operation, but little was done, beyond the regulation of the diet, and the liberal and continuous exhibition of opium. The bowels were then moved, for the first, by injections of warm water and molasses. On the eighteenth, and twenty-fourth days, the ligatures came away. About this time there was vomiting, diarrhœa, and an accelerated pulse, which however disappeared on the escape of the last ligature, three days after which the external wound had closed." "On the sixth day, there being a bad odor from the wound, we passed a catheter into it, and threw in Dr. Peaslee's artificial serum, and continued the same for two weeks, as we thought with excellent effect."—Dr. Anderson.

Writing on the thirteenth day, Dr. Price says: "Her appetite is good, and she told me yesterday that she had not suffered as much

during, and since the operation, as she did in one night before." Writing on the thirtieth day, Dr. Anderson says: "She has now a good appetite, is gaining strength rapidly, wound completely healed, mind cheerful—in short, there is not an unpleasant symptom about her. I left her to-day sitting in an armed chair, in which luxury she has indulged for several days."

On the fifty-seventh day we were favored with a visit from her delighted husband, Mr. Jas. Neel, from whom we learned that she was enjoying excellent health, and was fully restored to her place at the head of her family.

We have stated that the abdominal parieties were greatly thickened, from serous infiltration. The escape of serum from the surface of our wound was so rapid and constant, and so evidently destined to be continuous, that after emptying the pelvic excavation several times, we were obliged to close the wound and let it accumulate in the abdomen. Furthermore, the attachment to the anterior and lateral portion of the abdominal walls being very strong, its separation was followed by a continuous oozing of blood and formation of coagula on the peritoneal surface; and although these were cleared away, time after time, there is no doubt but the surface of the parietal peritoneum was thus extensively covered subsequent to the operation. We mention these things as showing what the peritoneum is capable of tolerating in these operations.

The firm resistance which the hand met behind the mass, was evidently the root of the mesentery. At a later stage it was discovered that the transverse colon was adherent to the summit of the tumor. The hand had passed behind it, so as to reach that part. The colon was separated without difficulty.

Description of Tumor.—The solid mass rolled out weighed 25 pounds. The fluid portion collected, 27 pounds, a quantity of fluid escaping variously estimated at from 5 to 15 pounds; making the tumor about 60 pounds in weight. It is a fine specimen of the non-pediculated, proliferous cyst. A single cyst filled the pelvis, and contained four or five pounds. Two or three cysts occupying the epigastric region are large enough to contain two or three pounds each. With these exceptions, the superficial ones were only large enough to contain from three to five ounces, the deep seated ones being much smaller. The contents of the larger ones were somewhat limpid; those of the smaller ones were thick, and semi-gelatinous, and exceedingly various in color. The batch of cysts, thoroughly emptied, weighs nine pounds.

It will be remembered that we reported two cases of Ovariotomy in the last January number of the Journal—one successful, one fatal. We received a long letter recently from the happy subject of our first operation, from which we learn that she continues to enjoy very fair health. We forbear comment upon these cases at present, but shall recur to the subject hereafter.

Cases. By A. METZ, M. D., Massillon, Ohio.

I. *Trephining for Epilepsy.*—The following belongs to a class of cases that at present attracts a considerable degree of interest, since the labors of Marshall Hall, and Brown Sequard, have done so much to throw light on the obscure pathology of this dreadful disease. Unfortunately I have no notes of the case, and can, therefore, present only an imperfect sketch of it.

John Diehl, an intelligent, healthy child, when six years of age, received a blow from a corn hoe on his head, over the region of the left parietal bone, above and a little in front of the ear. Caries of the bone ensued, and the wound remained open for six months. Soon after the wound healed, he was taken with Epileptic fits, which at first returned at intervals of a month, but constantly increased in frequency and severity. I saw him six years after the injury, when he had one or more severe Epileptic fits every twenty-four hours. At intervals of from fifteen to twenty minutes, he had spasmodic contractions of the flexor muscles of the body, which would draw the head toward the knees. The spasms would continue nearly a minute. He was idiotic, and had lost the power of speech, to an extent, so as not to be understood by strangers. There was a marked depression of that portion of the skull that had received the blow.

On the 19th of May, 1851, I removed the depressed portion of parietal bone with the trephine. The relief was prompt and marked. The spasmodic contractions nearly ceased, his speech improved decidedly, and his countenance appeared to brighten up with returning intelligence. A month after the operation he had had but one quite mild fit. About two months after the operation, he was taken with a severe attack of malarious fever, which then raged in that locality, upon which, the fits, the muscular contractions, and all the bad

symptoms returned with renewed violence, which in spite of every exertion made to save him, gained in severity until he was relieved from his sufferings by death, four months after the operation. A cadaveric investigation could not be obtained.

II. *Fracture of both Clavicles.*—Last January, Mr. J. W. Cowen, a miner, while laying on his side at work, had several tons of coal fall on him, which fractured both clavicles. One was fractured near the acromion, and the other at its outer third. Never having given the management of such an unexpected contingency a thought, I was taken by surprise by the complete inapplicability of all the fixtures I had been in the habit of using for fractures of the clavicle. Fox's excellent apparatus I found useless—or at least quite inconvenient, for *want of a point of attachment for the tapes.*

The only one of my text-books that notices this trouble is Malgaigne, in his *Traite des Fractures.* Out of 2,358 cases of fracture of the clavicle at *l'Hotel-Dieu,* he saw but one case of double-fracture. The treatment of Dupuytren was to confine the patient on his back in bed, with pillows placed between the arms and the body. Malgaigne approves of this plan—and in addition recommends that a bandage be applied around the body to confine (*assujettir*) the arms and elbows. To say the best of this method, to confine the patient to bed for a month appeared uselessly severe, and I determined not to enforce it, providing I could adopt a milder plan of treatment.

I then applied to my friend, Doctor F. T. Hurxthal, for a pattern of his *yoke,* with which he has quite successfully treated fractures of the clavicle. I believe he is the originator of the yoke. I had the yoke project a few inches beyond the shoulders with holes in the ends for attaching tapes. I used the elbow-pokes and axillary pads of Fox, and the yoke presented excellent points of attachment for the tapes. The patient was able to be about during the treatment. The cure was completed with but little trouble and no deformity.

Notes on some of the Chemical Reactions of Strychnia. By T. G. Wormley, M.D.

In the following paper it is proposed to give the result of some experiments in regard to the relative value of the various tests which have been proposed for the detection of strychnia.

The various solutions were made with great care from pure strychnia, generally dissolved in just sufficient quantity of dilute acetic acid, and the reagents were generally applied by means of a glass rod dipped in a saturated solution of the reagent, to a *single drop* of the strychnia solution, delivered upon a glass slide, from a graduated burette which furnished a grain of fluid in each drop. Therefore, each drop contained an amount of pure strychnia, corresponding to the fractional dilution of the solution.

To prevent repetition in giving the various tests, the amount of strychnia operated upon will frequently be stated simply in the form of a fraction, it always being understood to imply the fractional part of a grain of strychnia, in one grain of water.

1. Ammonia.

1. $\frac{1}{100}$th grain of pure strychnia in one grain of water, gives with ammonia an immediate white precipitate, at first amorphous, but very soon it begins to assume a crystalline form, and in about three minutes the drop becomes a solid mass of lengthened prisms.

2. $\frac{1}{300}$ gives no immediate precipitate, but in a few seconds beautiful stellate crystals begin to form, which very soon become abundant.

3. $\frac{1}{1000}$ behaves much the same as 2—not so abundant.

4. $\frac{1}{2500}$, with the microscope, crystals begin to form in about a minute, in three minutes they are very obvious to the naked eye. If the drop be rubbed with the glass rod, rings of granules are very obvious to the naked eye in a few seconds, and the ppt. is much more abundant than when not thus treated.

5. $\frac{1}{3000}$, no indication after stirring for several minutes, except when viewed with the microscope, a few granules appear.

From the above, the limit of the test, when applied to a single drop, is when it holds in solution $\frac{1}{2500}$th its weight of strychnia.

2. Potash.

This reagent behaves much the same as ammonia, its limit being about the same. In applying this test it is very important that the proper quantity of the reagent be added, for if either too much or too little, no ppt. will be produced.

3. Carbonate of Potash.

1. $\frac{1}{100}$th grain of strychnia gives an immediate white precipitate of star-like crystals, which will redissolve if a sufficient quantity of the reagent has not been added.

2. $\frac{1}{300}$, in a few seconds small granules, prisms, and a few star-like crystals begin to form, which soon become rather abundant.

3. $\frac{1}{1000}$, in a few seconds, lengthened granules may be observed with the microscope, in a few minutes they are obvious to the naked eye.

4. $\frac{1}{2000}$, after a few minutes small granules are very perceptible.

5. $\frac{1}{3000}$, after several minutes, no indication with the microscope.

4. Carbonate of Ammonia.

In $\frac{1}{10}$ and $\frac{1}{500}$ solutions the same results as with carbonate of potash. In a $\frac{1}{1000}$th solution, no indication after 15 minutes.

5. Iodide of Potassium.

1. $\frac{1}{100}$th, solution in a few seconds gives a white crystalline ppt. of tufts of long prisms.

2. $\frac{1}{300}$, it is several minutes before crystals begin to form; if the solution be stirred, however, they begin to appear in about two minutes.

3. $\frac{1}{1000}$, by stirring, crystals begin to appear in about five minutes.

4. $\frac{1}{2000}$, crystals begin to appear in about seven minutes.

5. $\frac{1}{3000}$, with the microscope crystals can be seen in ten minutes, in about twenty minutes they are just perceptible to the naked eye.

6. Sulphocyanide of Potassium.

1. $\frac{1}{100}$, gives an immediate mass of white crystals.

2. $\frac{1}{300}$, in a few seconds the crystals are very abundant.

3. $\frac{1}{1000}$, by rubbing, in a few minutes crystals begin to form.

4. $\frac{1}{2000}$, after several minutes, a few crystals may be observed upon the border of the drop with the microscope.

7. Tannic Acid.

1. $\frac{1}{10000}$, gives an immediate white curdy precipitate.

2. $\frac{1}{20000}$, gives very satisfactory results.

3. $\frac{1}{30000}$, after a few minutes the ppt. is quite perceptible.

4. $\frac{1}{40000}$, after several minutes it is just possible to observe a white cloudiness.

The satisfactory limit of the test is when it is applied to a drop of fluid holding in solution $\frac{1}{25000}$th its weight of strychnia. The ppt. is very soluble in acetic acid; and if obtained from dilute solutions, it is, also, soluble in a drop of potash, giving a red liquid; but

when produced from strong solutions, the ppt. will not all dissolve in a drop of potash solution.

8. Bichloride of Platinum.

1. $\frac{1}{100}$, an immediate yellow amorphous ppt., soon becoming granular.

2. $\frac{1}{300}$, in a few moments an amorphous ppt, which soon becomes granular.

3. $\frac{1}{500}$, in a few minutes the results are very good.

4. $\frac{1}{1000}$, if the solution be rubbed, small granules begin to appear in a few minutes, and soon the result is satisfactory.

9. Terchloride of Gold.

1. $\frac{1}{100}$, gives a bright yellow amorphous ppt., which soon becomes partly granular; most of the granules float upon the surface of the drop. A portion of the ppt. collects into little yellow flakes.

2. $\frac{1}{1000}$, gives an almost immediate precipitate.

3. $\frac{1}{3000}$, gives very satisfactory results.

4. $\frac{1}{4000}$, at this degree of dulution the ppt. is still perceptible, but not satisfactory.

When the ppt. obtained from a solution containing $\frac{1}{3000}$ or less of its weight of strychnia is boiled, the ppt. will dissolve and give a yellow solution, from which it will again be deposited with little or no change upon becoming cool. If the solution contains more than $\frac{1}{3000}$ its weight, the ppt. will not entirely dissolve upon boiling; after cooling there will generally be a metallic gilding upon the sides of the tube. The ppt produced from $\frac{1}{3000}$, or more, dilute solutions will readily dissolve, without change of color, upon the addition of a drop or two of potash solution; if then the solution be boiled it will become a fine purple color, with sometimes a purple ppt. When the ppt. is from a stronger solution than above stated, it does not readily dissolve in potash, and when the mixture is boiled it yields a fine purple solution, with more or less of purple tint.

10. Chromate of Potash.—(Yellow.)

1. $\frac{1}{100}$, gives an immediate yellow mass of crystals, soluble in thirty drops of strong acetic acid.

2. $\frac{1}{1000}$, crystals begin to form in a few seconds, but they are not very abundant after standing 15 minutes.

3. $\frac{1}{20000}$, with the microscope a few prisms may be observed in eight minutes, but to the naked eye no indication after 20 minutes.

11. Bichromate of Potash.

1. $\frac{1}{1000}$, an immediate mass of brilliant yellow dendroidal crystals.
2. $\frac{1}{10000}$, in a few seconds much the same as 1.
3. $\frac{1}{50000}$, crystals began to form in a few seconds, in a few minutes they are abundant.
4. $\frac{1}{100000}$, in a few minutes beautiful octahedree appear, resembling those of oxalate of lime.
5. $\frac{1}{150000}$, by rubbing, the crystals are obvious with the microscope in a few minutes, and in several they can readily be seen with the eye.

The precipitate produced by this reagent is not as readily soluble in acetic acid, as that produced by the yellow chromate of potash.

12. Carbazotic Acid.

This, and the three following tests, we have formerly recommended in our lectures. The only specific account we have seen of any of them, is in the recent edition of Taylor on Poisons, in which the iodine test is suggested.

An alcoholic solution of carbazotic acid will produce with—

1. $\frac{1}{4000}$ grain of strychnia an immediate yellow amorphous ppt., soon becoming tufts of a twig-like form.
2. $\frac{1}{10000}$, almost immediately a ppt., soon becoming same as 1.
3. $\frac{1}{50000}$, by rubbing a few seconds, a copious deposit of granules.
4. $\frac{1}{100000}$, in about a minute much the same as 3.
5. $\frac{1}{200000}$, in a few minutes small granules are very obvious.

13. Chloride of Palladium.

1. $\frac{1}{1000}$, an immediate dirty white ppt., soluble in acetic acid, insoluble by boiling.
2. $\frac{1}{10000}$, an immediate yellow precipitate.
3. $\frac{1}{50000}$, in a few seconds the ppt. is perceptible, and soon becomes pretty good.
4. $\frac{1}{100000}$, after rubbing for several minutes a few granules can be observed with the microscope.

14. Iodine.

Of the various tests recommended for strychnia, this is the most delicate. It was applied in the following experiments, by dissolving three grains of iodide of potassium in one fluid drachm of water, and then adding one grain of iodine.

1. $\frac{1}{100}$, immediately a copious brownish yellow amorphous ppt., soluble in alcohol and ether, but only soluble in large excess of acetic acid. The ppt. partially dissolves in a few drops of potash solution, but is immediately replaced by a dirty white precipitate.

2. $\frac{1}{200}$, a yellowish ppt., soluble in potash, and replaced by a dirty white precipitate.

3. $\frac{1}{500}$, the precipitate dissolved in potash gives a faint white precipitate.

4. $\frac{1}{800}$, the ppt. is immediately produced, and soon collects into little yellow flakes.

5. $\frac{1}{1000}$, if the drop be touched with a small drop of the reagent upon the end of a glass rod, it gives immediately a very obvious yellow precipitate.

If a few drops of the last named solution be placed in a watch crystal, and a drop of the test fluid be placed by its side, and allowed to flow into the solution, as they meet yellow streaks can readily be observed, and the solution will become turbid.

15. Bromine.

This reagent was prepared by saturating a strong solution of hydrobromic acid with bromine.

1. $\frac{1}{100}$, gives an immediate bright yellow amorphous ppt.

2. $\frac{1}{150}$, a greenish yellow precipitate.

3. $\frac{1}{200}$, a dirty yellow ppt., which after a time nearly all dissolves.

4. $\frac{1}{300}$, the ppt. is perceptible but soon dissolves.

16. Color Test.

It is well known that if strychnia, or its salts, be dissolved in sulphuric acid, and then a small quantity of bichromate of potash, ferridcyanide of potassium, peroxide of lead, or of peroxide of manganese, be added, a series of colors are developed. This is known by the name of the color test. We have succeeded best by placing the strychnia, or a drop of the solution evaporated to dryness, in a

watch glass, and by its side a drop of strong sulphuric acid, into which a fragment of bichromate of potash was introduced, and stirred until it imparted a yellow color; then by inclining the watch glass the colored sulphuric acid was allowed to flow over the strychnia.

1. $\frac{1}{1000}$ grain of strychnia in one drop of water, gave in a majority of a number of experiments very satisfactory results, however, in some the reactions were just perceptible. In solutions stronger than the above the results were always very satisfactory.

2. $\frac{1}{5000}$, in many cases we failed to get any indication, in others there was a faint trace of color, which very rapidly disappeared.—In no instance was there such a reaction as should be sufficient for medico-legal purposes.

3. $\frac{1}{10000}$ of a grain, dry, will always give a fine reaction; by allowing the acid to flow upon a portion of the deposit at a time, several indications may be obtained from the same deposit.

4. $\frac{1}{30000}$, dry, in a majority of instances the results were very good; in some, however they were very faint. The success of the experiment depends much on the character of the deposit left by evaporating the solution to dryness; sometimes the principal part of it is in the form of a ring, which, when examined with the microscope, consists of well-defined crystals; at others, the deposit is a confused mass distributed over the space occupied by the drop. In the latter case the result will not be nearly so satisfactory as in the former.

5. $\frac{1}{100000}$, in a number of cases manipulated differently, the majority gave no indication; some few a slight trace, but in no instance was the reaction satisfactory.

As the color test is relied upon, perhaps, more than any other for medico-legal purposes, it is important to remember that it is interfered with by the presence of morphia. When *one part of strychnia* is mixed with—

1. One part of morphia it gives very good results. The colors, however, are not so bright as with strychnia alone.

2. $1\frac{1}{2}$ of morphia. If a small quantity of this mixture is used the reaction is very good, but in a larger quantity, the reaction is just perceptible.

3. 2 of morphia. A small quantity of this mixture will give a pretty good reaction; $\frac{1}{30}$th grain gives but a mere trace.

4. 3 of morphia. A very small quantity of this mixture will

give but little indication, and a larger quantity gives no reaction indicative of the presence of strychnia.

17. Physiological Test.

We are indebted to Marshall Hall for this test. It consists in administering strychnia to frogs, by which they are rendered violently tetanic; he recommended the frogs to be placed in a solution of the poison. Dr. Harley proposes to inject the liquid into the thoracic or abdominal cavity of the frog.

In the following experiments a small portion of the strychnia solution—from $1\frac{1}{2}$ to 2 grains of fluid—was taken up by a pipette, the end of which was then introduced into the stomach of the animal, and the solution dislodged by blowing through the tube. The frogs were then placed under an open glass receiver. The species used was the *Rana Halecina.—Kalm* From experiments made upon more than one hundred individuals, we are led to believe that this species is more sensitive to the effects of strychnia than any of the other several species found in this locality; however the difference observed may have been due to some other cause than difference of species. The weight of the frogs used in the experiments detailed below, varied from 18 to 45 grains.

1. When a solution holding $\frac{1}{100}$th its weight of strychnia was used, the animals immediately became rigid, with violent tetanic spasms, and died, on an average, in 8 minutes.

2. When a $\frac{1}{150}$ solution was used, the symptoms usually began in about three or four minutes.

3. $\frac{1}{1000}$ solution: the symptoms appeared in some in ten minutes, in others they were delayed as long as 24 minutes.

4. $\frac{1}{2000}$th solution; of 22 frogs used, in 17 of them the symptoms appeared in from 27 to 45 minutes; in the other five there were no unequivocal symptoms; there was, however, very great prostration, and some slight tetanic movements.

5. $\frac{1}{3000}$th solution; of 10 small individuals used, eight were seized in 45 minutes, the others did not show unequivocal tetanic spasms.

Columbus, Ohio, August 23d, 1859.

PART SECOND.

AMERICAN AND FOREIGN INTELLIGENCE.

On Amputation by a Long and Short Rectangular Flap. By THOMAS P. TEALE, Esq., F.L.S., F.R.C.S., Surgeon to the Leeds General Infirmary.

[The excellence of a stump is not to be judged of by its seemly form and its being not offensive to the sight; we ought to inquire whether it is well adapted to locomotion, by being able to bear a considerable portion of the weight of the body on its end. Now as a general rule, it may be stated, that stumps are not able to bear even the slightest pressure on their extremities where amputation has been performed by the circular or ordinary double-flap transfixion methods. Mr. Heather Bigg and Mr. Grossmith, of London, and Mr. Thomas Eagland, of Leeds, surgical mechanicians, who have had extensive experience in the adaptation of artificial limbs, state that pressure can never be borne upon the end of the stump formed by the circular or transfixion methods, on account of the pain produced; and that, as a general rule, the cicatrix is found adherent to the end of the bone.]

My own observation of such stumps, taken in conjunction with that of the gentlemen whose statements have been quoted, lead me to conclude: first, that in stumps formed after the circular and transfixion methods it is extremely rare to find a soft moveable mass of tissues over the end of the bone; secondly, that with very few exceptions the cicatrix is adherent to the end of the bone; and thirdly, that such stumps are generally unable to bear pressure on their extremity.

I have certainly known a few exceptions to these statements, and have also seen some apparent but not real exceptions in amputations for accident, in which, on account of the irregular destruction of soft parts, the flaps were formed irregularly, being freely taken from those parts where they could be obtained. But these cases must be distinguished from circular and transfixion amputations, performed "according to rule."

On these grounds, then, I think, it may fairly be asserted that stumps formed by the circular and transfixion amputations are far from being perfect.

To procure a more useful stump, and in the hope of somewhat diminishing the mortality of the operation, it is proposed to amputate by a long and a short rectangular flap—the long flap, folding over the end of the bone, being formed of parts generally devoid of large blood-vessels and nerves, whilst these important structures are contained in the short flap.

The size of the long flap is determined by the circumference of the limb at the place of amputation, its length and its breadth being each

equal to half the circumference. The only flap is therefore a perfect square, and is long enough to fall easily over the end of the bone. In selecting the structures for its formation, such parts must be taken as do not contain the larger blood-vessels and nerves. A flap so formed will be for the most part anterior in position as far as regards the general aspect of the body, but superior when the patient is in the recumbent posture, as during the after-treatment.

The short flap, containing the chief vessels and nerves, is in length one-fourth the other.

[Mr. Teale strongly recommends the surgeon on first practising this operation to mark out the lines of intended incision in ink, lest the long flap should be made too small.]

The flaps being formed, the bone sawn, and the arteries tied, the long flap is folded over the end of the bone; each of its free angles is then fixed by suture to the corresponding free angle of the short flap. One or two more sutures complete the transverse line of union of the flaps. At each side the short flap is united to the corresponding portion of the long one by a point of suture, and one suture more unites the reflected portion of the long flap to its unreflected portion. Thus the transverse line of union is bounded at each end by a short lateral line at right angles to it.

After the patient has been carried to bed, the stump is laid on a pillow, over which a large sheet of gutta percha tissue has been spread. *No dressing whatever* is required in the early part of the treatment. A light piece of linen or gauze is thrown loosely over the stump and pillow, and these are protected from the pressure of the bedclothes by a wire-work guard. To relieve tension the lateral sutures may be removed on the following day, but those of the transverse line may be allowed to remain until they are cast off, or appear no longer needed on account of the consolidated union of the parts. When the sutures of the transverse line have lost their hold, if the flaps should gape, a strap or two of adhesive plaster may be applied. Simplicity in the treatment is thus secured, as well as disturbance of the stump avoided.

To carry out these objects completely, the attendants and nurses must be strictly enjoined not to lift the stump from the pillow without the authority of the surgeon. As there are no dressings to be soiled, and therefore to require removal, the stump generally need not be raised from the pillow for many days, or even for two or three weeks. When there is a discharge of matter, the nurse must remove it frequently by a soft sponge from the subjacent gutta percha, without lifting the stump.

The chief advantages of this mode of operating are—

1st. The avoidance of tension.

2dly. The formation of a soft covering for the end of the bone consisting of parts free from large nerves.

3dly. The non-disturbance of the plastic process, and the consequent placing of the large veins of the limb, as well as the smaller veins of the bone, in a condition the least likely to take up purulent matter and putrid blood or serosity.

4thly. The favorable position of the incisions for allowing a free outlet for purulent and other discharges.

The avoidance of tension is secured by the ample size of the long flap. For although the tonic contraction of the divided muscles is allowed to go on unrestrained by circular bandaging or adhesive dressings, the flap is still amply sufficient to cover the end of the bone; indeed, at the time of the operation it often appears superabundant, but in the result it is not found to be so, chiefly in consequence of the great retraction of the short flap.

The non-disturbance of the plastic process is the chief point on which the future safety of the patient depends. The long flap folding over the end of the bone, and being free from tension, soon acquires an organic union with it. The open mouths of the veins of the bone are thus early sealed; and the chief veins of the limb, protected in the retracted short flap, and undisturbed by unnecessary liftings and dressing of the stump, have also the best opportunity of becoming permanently closed, and of being thereby rendered incapable of taking up purulent and putrid matters.

There are, however, causes unfortunately beyond our control, which frequently oppose the plastic process. These are epidemic influence, hospital air, the peculiar condition of the general atmosphere, and, more serious than all, the effects of *shock*. The evils of shock are not only immediate, but also remote. A person in robust health may, by the immediate effect of shock from injury, have his life nearly extinguished, and may so far rally as to be submitted to amputation, but the *remote* effects of the shock are still in store for him. In such a case the vital condition of the blood and of the whole fabric of the body may remain so far lowered as to be incapable of setting up a *vigorous* process of repair.

The *character of the stumps* obtained by this method of operating may now be considered.

Their chief peculiarity consists in their having a soft mass of tissues, devoid of large nerves, moveable over the sawn end of the bone, which enables them to bear pressure on their extremity.

[This valuable pamphlet is illustrated by numerous wood engravings by Bagg, showing most of the amputations usually performed in Mr. Teale's way. The particular directions for performing each are also given. Our opinion may be slightly biased by the friendship and respect in which we hold the author; but we cannot but look upon this little work as one of the most valuable contributions to surgery which has for many years issued from the press.—*Teale on Amputation by a Long and Short Rectangular Flap.* Churchill, 1858.

Practical Deductions from an Experimental Inquiry into the Influence of Food.

Dr. Edward Smith read an interesting paper on this subject before the Royal Medical and Chirurgical Society, May 10, 1859. In some preliminary remarks the author referred to the large amount

of vital action which is necessary to maintain life, and mentioned the various circumstances which he had noted during the continuance of a prolonged fast. He stated that the practice of administering arrowroot, or other fashionable foods consisting of starch, with water, under the impression that it was more nutritious and easier of assimilation than wheat flour, was indefensible, since it did not sustain the vital action to a degree capable of maintaining life, and that nature has not provided starch as food altogether apart from nitrogenous substances. He contrasted the action (or rather want of action) of starch with that of the cereals, and showed that the latter is nearly as great as that of any substances with which we are acquainted. He drew the distinction between an action which increases the existing amount of vital power, and that which only tends to prevent loss of vital power—two circumstances which in practice are commonly confounded; and showed that beef-tea, wines, and brandy can act only in the latter mode, while the cereals act in the first-named manner. Hence, in cases of prolonged exhaustion, where there has long been more waste than supply, the former is not sufficient, and it is essential that the latter be added or substituted.

The action of milk is exceedingly analogous to that of the cereals both in extent and duration, and the combination of the two appears to be the most perfect kind of food. The casein is to the milk what gluten is to bread, and the oil in the milk with substances (respiratory excitants) which call it into action, in a manner quite analogous to the common combination of bread and butter, or of a mixture of fat and lean flesh. The author showed that milk and flesh were the best and most natural modes of administering fat, and altogether preferable to the administration of separated oils. He referred to the frequent use of skimmed milk in Germany as a medicinal agent, and of sour milk in Greece and America as a part of food; and explained the action of the former by its casein and sugar as respiratory excitants; and that of the latter by the advantage of administering lactic and other acids in that combination in the summer season and at other times, when the blood, by tending to undue alkalinity, is less capable of carrying on the oxidizing process. He showed that in fevers skimmed milk is preferable to new milk.

As fats lessen the respiratory changes, they ought to be, and are, combined with other articles of food which increase them. The author referred to the importance of determining the seasons for the administration of both fat and starch, and showed that there is less difference in the relative amount of these two substances, used in different climates, than has been commonly believed. He attached importance to the physical properties of fat, and explained the beneficial action of that substance when applied to the skin. He thought this latter mode of employing fat to be especially fitted for cases of debility, with lessened appetite and perspiring, soft skin, in which state the waste is always greater than the supply. The beneficial action of sugar was insisted upon; and the love of the French for sugar and water was explained by the refreshing coolness, the innoc-

uousness, and the agreeable flavor of the fresh-made beverage, and the great freedom and lightness of the respiration which attend its action. He thought the ill effects of sugar in the healthy system had been exaggerated. The action of animal substances in increasing the respiratory process, in addition to the supply of plastic material, was dwelt upon, and shown to be of great value to the system. These are allied to gluten, and some of them probably act as ferments; and, in illustration, he especially cited cheese, which promotes assimilation if taken in small quantity, but is apt to disturb it if much is eaten. Tea was shown to cause increased waste, and to excite every function of the body, and hence was well fitted to cases where there was a superfluity of material in the system, or where we otherwise desire to induce a temporary increase in the vital action; but is injurious to those who are under fed, or in any case where there is greater waste than supply. In illustration, the author cited the increase in the loss of weight in the prisoners at Wakefield when tea was added to their food. The action of tea has been hitherto misunderstood, but the sagacious observation of Liebig as to its analogy with the active principle of the bile was much commended. He (Dr. Smith) recommended its use instead of spirituous liquors by soldiers on march, or otherwise exposed for a lengthened period to great heat; since by its powerful influence in increasing respiration and the action of the skin, without increasing pulsation, it was particularly fitted to counteract the influence of heat in its tendency to induce heat-apoplexy, or, as more suitably termed by Mr. Longmore, "heat-asphyxia;" twenty-five grains of tea in a concentrated cold infusion, taken every hour or half hour during exposure would suffice. For similar reasons, he urgently recommended it as an adjunct in the treatment of suspended animation, as from immersion. It has a rapid and accumulative action, so that the small and repeated doses have much greater effect than larger and more isolated ones. It differs from coffee chiefly by increasing the action of the skin, and thereby tending to cool the body, and therefore the two substances are applicable to different conditions of system. He thought that both, and particularly tea, ought to be more commonly used as medicinal agents. Coffee-leaves he believed to be a valuable febrifuge medicine, and one particularly fitted for cases of nervous excitability.

The author then contrasted the effects of brandy and gin with tea, and showed that in all respects they were directly opposed; but coffee so far resembled them in action, that it lessened the action of the skin, and thereby lessened refrigeration. Rum and beer he regarded as restoratives, and the combination of rum and milk as the best restorative employed as food; while brandy and gin simply lessen waste. He regarded all alcohols as having their chief influence in sustaining the action of the heart, and recommended that they should be given in small quantities, and repeated every quarter of an hour or half hour in urgent cases, so as to accumulate their action, rather than allow reaction to follow each dose by permitting a long interval between the doses. He mentioned a case in which he

gave six bottles of port wine in forty-eight hours, with the effect of sustaining the patient's life, and reducing the pulse from 150 to 90 per minute. He believed that alcohol increased the respiratory action indirectly through the nervous system, and that in fine old wines and spirits this action is lessened by the volatile elements, which have a conservative tendency. He particularly cited the conservative influence of fine old port wine, and the disturbing influence of new and inferior spirits. The primary and secondary action of all alcohols, when taken in an amount to affect the sensorium, was always felt, and the author described the attendant circumstances.

In conclusion, Dr. Smith stated that dislikes for foods are indicative of lessened action, and that other foods of analogous properties should be provided in such cases; and also that it was probable that at least some kinds of azotized substances are more fitted for the hot season, when the chemical changes are greatly reduced, than has been heretofore believed.—*Med. Times and Gazette*, May 21, 1859.

On the Treatment of Prolapsus Ani in Children. By M. GUERSANT. (Behrend and Hildebrand's Journal fur Kinderkrankheiten, 1859, 1, 2.)

In a small hospital in London, to which patients suffering from diseases of the rectum alone are admitted, prolapse of the anus is not treated by operation. According to Dr. Salmon, this disease can be cured, not only in children, but also in adults, by the evacuation of the bowels in the recumbent posture, as in this position the patient cannot strain much, thus generally, preventing the descent of the intestine. After the observance of this treatment for some time, the relaxation of the parts, which permitted the prolapse, disappears, and a cure is effected. At the same time vegetable astringent injections are employed, although alum will be found useful. As a local application strychnia may also be mentioned. This was first employed successfully by Duchassoy, who made two or three very small blisters around the margin of the anus, and dressed the raw surfaces with the ointment of strychnia. Dr. Johnson treated, in 1854, two cases by the local application of the same remedy; he states that in the lighter and more recent forms of prolapse he obtained a cure by regulating the bowels, employing astringent injections, and administering tonics. In neglected cases, when the sphincter is much relaxed, strychnia may be of some use, but it is not, however, to be recommended, as it is unreliable in grave, and superfluous in light cases; it is, moreover, troublesome, and not without danger. Dr. Johnson considers cauterization after Guersant's method more valuable.

In the Metropolitan Free Hospital, Mr. Hutchinson employs the tincture of nux vomica, in very small doses, since he believes it imparts tone to the sphincters and walls of the intestines.

Sir Benjamin Brodie prescribes, internally, calomel and rhubarb, and uses injections of the dilute tincture of the chloride of iron.

Mr. Ashton maintains that in children suffering from this affection, the liver is principally to be attended to; and Mr. Curling recommends the use of cod liver oil, after sufficient purgation.

Mr. Salmon treats recent cases in children in the following way: First, the patient must evacuate his bowels in no other but the recumbent posture; second, the prolapsed part is thoroughly moistened with a decoction of oak-bark and alum; third, internally, he employs calomel and rhubarb; when he orders, fourthly, tonics, and a nourishing diet.

When the usual remedies have been employed without effect, and the symptoms remain obstinate, M. Guersant advises cauterization of the skin and sphincter muscles with the hot iron. He does not cauterize the whole of the protruded mucous membrane, as was formerly done, as he considers the measure barbarous and hazardous. He proceeds, generally, in the following manner: The child is subjected to a certain diet, and shortly before the operation an injection is administered to clean out the lower bowel. The patient is placed upon his side, his thighs are flexed, and the protruded rectum reduced; an assistant drawing away one buttock, while the operator controls the other. The cautery is about the shape of that used by dentists, either curved or straight, and terminates in a small ball, which, above, runs out into a little point. It is applied at opposite points around the anus, and must penetrate the sphincter in order to be efficient. It is also necessary to draw the margins of the anus well apart on applying the cautery, and allow the small ball, after its point has penetrated the sphincter, to act upon the margins of the skin and mucous membrane. The patient must be placed under the influence of chloroform, and the iron be used at a white heat. If the rectum protrude during the operation, it should be pushed out of the way of the instrument. Cold-water dressings are the only applications made after the operation.

M. Guersant recommends this plan of treatment as an excellent, but not infallible means. In a few rare cases the children are cured in one day; more frequently, however, the prolapse returns in a few days, and the cure is not completed before the eighth or tenth day, when cicatrization has taken place. Sometimes a second cauterization will become necessary.

Observations on the Diagnosis of Diseases of the Pancreas. By Prof. OPPOLZER, of Vienna.

The most important diseases of the pancreas, evinced by the anatomical changes, are scirrhus, atrophy, hypertrophy, acute and chronic inflammation. *Scirrhus of the pancreas* is much rarer than *scirrhus around the pancreas* (scirrhus circa pancreatem;) its diagnosis is there-

fore not easily established, and this difficulty is increased by the circumstance that the evacuation of fæces containing fat is not peculiar to diseases of the pancreas, as was formerly believed, but may also occur in affections of the mucous membrane of the duodenum, and that the digestion of amylaceous matter may be hindered without disease of the pancreas being the cause of it.

Atrophy of the pancreas has recently attracted much attention by its occurrence in diabetic patients, and by Bouchardat ascribing to these two diseases the relation of cause and effect. It is proved that atrophy of the pancreas may be also produced by impediments in the secretory duct, or at its mouth, such as obstruction of the duct of Wirsung by foreign bodies, further by biliary calculi, cancer, and the cicatrix of a perforating ulcer near the diverticulem Vateri. It is, however, impossible to diagnosticate atrophy of the pancreas from the symptoms which accompany the disease, such as pain in the region of the pancreas, fatty stools, and emaciation.

Enlargement of the pancreas may take place in consequence of the deposit of fatty matter, whereby the acini become compressed, and the whole organ is converted into a mass of fat. In this affection also no characteristic symptoms are known, not considering that it is quite impossible to diagnosticate a lipoma within the peritoneum.

The occurrence of *acute inflammation* of the pancreas has been wholly denied. Oppolzer himself, however, saw the organ in one case swelled, reddened, and with exudation between the acini, as in parotitis. The patient suffered from oppressive pain in the pit of the stomach, and tried to obtain relief from it by taking brandy and pepper. This was followed by vomiting and increase of the pain. The vomited matter consisted of mucous and bile. The patient had a violent fever, very frequent pulse, and cold extremities, his face was shrunken, and he suffered from obstinate constipation. There was no blood vomited; and the case was diagnosticated as one of perforating ulcer of the posterior wall of the stomach. On the third day after being admitted into the hospital, the patient died, and the post-mortem examination proved the stomach to be healthy; around the pancreas, however, and between the layers of the mesentery, a large effusion of blood was found; the pancreas itself was enlarged to double its size, of a dark red color, and contained an exudation colored with blood between the acini.

Chronic inflammation of the pancreas was formerly diagnosticated very frequently; but it was usually confounded with perforating ulcers of the stomach. Chronic inflammation of the pancreas may, however, coexist with gastric ulcer, or with ulcer of the duodenum, and is then a secondary affection, the ulcer of the stomach or of the duodenum having formed adhesions with the pancreas. Prof. Oppolzer has observed a case of this kind; the patient, a girl, had suffered from a perforating ulcer of the duodenum, and on post-mortem examination adhesions between the ulcer and pancreas were found.

For some time it was considered dangerous to suppress salivation produced by a mercurial treatment, as it was thought that such a measure would give rise to an undue secretion of the pancreatic fluid

and to diarrhœa. Nothing, however, is known concerning the sympathy between the salivary glands of the mouth and the pancreas, as to whether diseases of the pancreas usually cause diarrhœa.

In regard, finally, to determining the position of the pancreas by percussion, it would not be impossible to feel it in the abdominal cavity, if the abdominal parietes were relaxed, and under normal conditions; but for estimating the size of the pancreas, and for drawing conclusions in regard to its diseases, there is exceedingly little to be gained by percussion.—*Allg. Wiener Medizinische Zeitung*, and *Medizinische Neuigkeiten*, April, 1859.

Memoir on the Oxalate of Lime in the Sediments of the Urine, and on the Gravel and Calculi of Oxalate of Lime. By M. GALLOIS. Read before the *Academie des Sciences* of Paris, April 4th, 1859.

The following propositions contain the substance of M. Gallois' memoir:—

1. Oxalate of lime is a substance which may be found transiently in the urine of the healthy individual, at all ages and at all periods of life.

2. It makes its appearance in more or less considerable proportions, especially under the influence of certain aliments, and probably of certain medicines.

3. Oxalate of lime is frequently met with in the urine of the sick, but its excretion does not constitute a disease by itself. Oxaluria is thus not a morbid entity, but only a symptom common to very different affections. Nevertheless, it is proper to state that oxaluria is observed oftener in spermatorrhœa, and in certain diseases of the nervous system, especially in dyspepsia.

4. There is a body which very frequently accompanies oxalate of lime in the urinary sediments, as well in gravel as in calculi; this body is crystalized uric acid.

5. The very common coexistence, in the urine and urinary concretions, of uric acid and oxalate of lime, seems to me to explain the formation of the oxalate of lime within the organism.

6. The relation which pathologists have endeavored to establish between oxaluria and diabetes, is not admissible.

7. Oxalic acid (and consequently oxalate of lime) seems to be derived from uric acid, and ought to be considered as an advanced degree of oxidation of the latter body, or of the elements which serve to constitute it; thus whenever there is uric acid in the economy, or the elements which are necessary to form it, oxalic acid can be produced under the influence of a more advanced oxidation which takes place in the blood.

8. Oxaluria demands, ordinarily, no other treatment than that of the physiological or morbid condition with which it is associated.

A great variety of remedies have been advised in the treatment of oxaluria:—First, abstinence from aliments and medicines containing oxalic acid; second, the use of small doses of nitromuriatic acid in a bitter and tonic infusion, of nitrate of silver (in gravel,) of colchicum (in certain cases,) or of phosphate of lime, etc.

9. For my own part, I have found that the alkaline mineral waters constitute the most efficacious means to prevent the excretion of the oxalate of lime, particularly if it is accompanied by a deposit of uric acid, a condition which seems to me the most frequent of all.—*Archives Générales*, May 1859.

Coup de Soleil.

Dr. Wm. Pirrie, late assistant surgeon to the 71st Highland light infantry, has related (*Lancet*, May 21 and 28, 1859) the results of his observations of numerous cases of sunstroke, which occurred during Sir Hugh Rose's summer campaign of 1858, in Central India.

The mode of death in all but the rapid form, is evidently, he says, by apnœa, "or at all events the symptoms of apnœa plainly predominate; and hence the name 'heat-asphyxia,' given by some to this most alarming disease. The symptoms are distinctly those of that mode of dying in which death commences in the lungs; but by what means the circulation begins to be arrested in the lungs—or, in other words, the manner in which high temperature operates in causing stagnation of blood in the lungs—whether it be by giving rise to immense engorgement, or by causing imperfect arterialization of the blood—I do not consider myself qualified to give an opinion. * *

"It is quite possible," he further remarks, "that even in the forms of sunstroke in which the respiratory apparatus is primarily affected, there may be some degree of cerebral syncope, even from the commencement; but, although it may be an erroneous impression, the study of such cases produced in my mind the belief, held by many, that death is caused by apnœa, or that the symptoms of that form of death predominate.

"In the forms of sunstroke in which the patient, without any premonitory symptom, falls down insensible, makes a few gasping efforts to breathe, and in a few minutes expires, the symptoms appear very clearly to indicate death beginning in the brain. The sensibility is first destroyed, and, as a necessary consequence, the functions of the lungs are suspended, and circulation of venous blood takes place: circulation of venus blood in this form of dying being the *consequence* of the loss of sensibility; whereas in death by apnœa it is the *cause*. The essential anatomical characters of both modes of death being the same, presenting only differences of degree in the chest and in the head, it is chiefly by the symptoms during life that an opinion can be formed as to whether death was caused by coma or by asphyxia. I am quite aware how speedily sensibility is de-

stroyed in death by apnœa; but many cases of sunstroke produce a strong conviction in the mind of the medical observer, that sensibility ceases first, and that death begins in the brain."

With regard to the treatment, Dr. Pirrie says his testimony may be given in a few words. "In many cases of almost instant death by sunstroke, life was lost before it was possible to institute any mode of treatment; and, in many others, the powers of life were so thoroughly sunk, from the moment of seizure, that remedies produced no impression on the symptoms. In no case was general bloodletting at all beneficial, but decidedly the reverse. In many instances, I have seen it employed by men of great experience who were well qualified to judge when it was likely to be useful, and the result was always unfavorable; and I have been told by many who had ample means of observation during the summer campaign of 1858, that venesection always seemed to hasten a fatal termination. The result of bloodletting seemed of itself sufficient to show that the vital organs are overpowered by some influence in addition to that of local congestion.

"The treatment most generally useful consisted in removing the patient to the shade as speedily as possible—in preserving the body in a proper position—in the energetic employment of cold effusion to the head—in producing as cool an atmosphere as possible around the patient—in the diligent use of friction and heat to the extremities and other parts, so as to cause derivation from the head and chest—in acting sharply on the liver and bowels by mercurial and other purgatives—in frequently administering diffusible stimuli, and in causing determination to the surface of the chest by applications of mustard or of turpentine. Along with these remedies, local depletion from the head seemed sometimes to be beneficial. When the patient became comatose, blisters to the back of the neck, and stimulating cataplasms to the feet or legs, were tried; but, in too many instances, they were of no avail.

"Another measure, to which Dr. Simpson, of her Majesty's 71st regiment, attached importance, was to engage the patient's attention by keeping him answering questions put to him in a loud tone of voice; to rouse him up by continually talking to him, and by rubbing his limbs; and not to leave him to himself till the remedies should have fair time for their operation. This expedient seemed, in some cases, to assist in warding off the insensibility, if not in some cases to prevent its accession.

"Under the use of the above-mentioned treatment, modified according to circumstances, many patients recovered; but, in too many instances, the result was fatal to those who were attacked with this singular disease."

Coup de Soleil.—It appears, from the report of Thos. Longmore, Esq., Surgeon to the 19th Regiment, that no less than 16 cases of heat-apoplexy occurred in that regiment, while stationed at Barrackpore, between May 23d and June 14, 1858.

Mr. Longmore specially calls attention to a symptom, important from its constancy and early manifestation—we mean irritability of

the bladder. In the case of Lieut. Colonel S——, "the *first* thing of which he complained was irritability of the bladder. If this symptom should prove to be a general precursor of the attack, it might be rendered valuable as an indication of the approaching danger, which, by early and proper care, might then probably be averted; and its presence at a time when heat-apoplexy was prevalent would make the surgeon alert to obviate the more serious symptoms which might be expected to follow." The doctrine here implied is that of the *local* warning (symptoms) of disease in operation at, perchance, a remote distance in the body, and which, being itself far removed from the scene of its local manifestation, would not *appear* to be the cause of such topical disturbance. This doctrine, in its important relation to diagnosis, is fully enunciated in a work just published. At page 11 of that work, Mr. Gant observes: "Irritability of the bladder, for instance, arising from some morbid condition of the urine, may prove to be the local warning to an individual, which first directs his attention to that condition, itself due to a far more grave disease of the kidneys, the stomach, or the nervous system. Hence the value of many symptoms, which, although themselves comparatively insignificant, may, nevertheless, guide us to discover latent disease in some distant and hitherto unsuspected organ."

Appearances on examination after death.—"In all the cases," Mr. L. says, "much the same appearances were presented as if the patients had died asphyxiated from some cause. Thus, excessive engorgement of the lungs, amounting generally to complete obstruction of the pulmonary circulation, and, in parts, having all the appearance of true interstitial apoplexy, was most remarkable. The cerebral congestion, less marked in character, and less constant in amount, seemed to me *secondary* to the failure of the due performance of the act of respiration, and, perhaps, resulted from loss of tone in the vessels, and from enfeebled action of the heart, consequent upon the imperfectly oxygenized blood it was receiving." In conformity with these post-mortem observations of heat-apoplexy, Mr. Longmore would term this disease "heat-asphyxia;" and the treatment which proved most successful would seem to corroborate this view of its pathology.

"*Treatment.*—"Cold effusion by mussucks of water, poured over the head, chest, and along the spine; counter-irritation by means of mustard poultices to the chest, purgative enemata, and afterwards, when the head remained oppressed, blistering to the nape of the neck." Venesection was not found useful, but topical blood-letting seemed advantageous when there was much fullness of the superficial veins about the head and neck. The duration of the disease presented two extremes. "Of the 7 fatal cases, 1 died in one hour, and 1 in forty-six hours, after the attack."—*Lancet*, March 26, 1859.

XUM

A Contribution to the Statistics of Cancer, collected from the Records of the Middlesex Hospital.

Septimus W. Sibley, Lecturer on Pathological Anatomy at the Middlesex Hospital, read an interesting paper before the Royal Medical and Chirurgical Society (March 8, 1859), in which he presented the result of an examination of 519 cases of cancer, together with the records of 172 post-mortem examinations. The more recent cases had been reported with uniformity and with some degree of fullness; some of the older cases were less perfect. In the first place the diseases embraced within the limits of the paper are defined, and what had been excluded from consideration. A table is then given, in which the seat of the primary cancer in each of the 519 cases is exhibited. There were 103 instances in the male, and 416 in the female; amongst the latter there were 191 of breast, and 156 of uterine cancer.

The ages of the patients are next stated. There were three examples under the age of ten (all males), and one between the age of ten and twenty. Tables are given, in which the ages are arranged in decennial periods, the cases of breast and of uterine cancer being placed in separate groups. The average age of those attacked with uterine cancer was 43.23 years; with breast cancer, 48.6.

Effect of marriage, pregnancy, &c.: Of the female cancer patients, 83 per cent. either were or had been married, and amongst the single women the disease occurred oftener in the breast than in the uterus. Of the married women, 86 per cent. of the uterine, and 47 per cent. of the patients with breast cancer, had borne children. The average number of the births was 5.2 among the former, and 3.39 among the latter. The interval between the last pregnancy, and the proportion attacked before and after the cessation of the catamenia, are also given.

The duration of life (from the first discovery of the disease), in patients who had not been operated on, varies greatly in the different classes of cases. In the breast it is 32¼ months; in the uterus, 14; in the stomach, 8½; in the rectum, 34; in the lip, face, &c., 53; in the penis, 34½; in the bones, 10; in the labium, 29. These figures are not perfectly comparable, as in some cases, especially the external cancers, the period given is the entire duration of the disease, whilst in others (as in the stomach) the period is only that during which the symptoms were present.

An account is then given of the operations (by the knife) in cases of cancer of the breast. Three patients out of 60 died from the effects of the operation. The average duration of life of those who were operated on was 53.2 months. In comparing this with the duration of life in cases in which the disease was allowed to run its natural course (32.25 months), it should be remembered that the cases submitted to operation are more or less selected ones.

As to the hereditary nature of the affection, the difficulties in obtaining accurate information upon this point are first alluded to. The chief of these is the very imperfect knowledge which most peo-

ple, but more especially hospital patients, possess of the diseases to which their relatives have been subject. Out of 305 cases, in which the point had been particularly inquired into, 34 patients remembered to have had a relation affected with cancer. A table is given of the seat of the disease in each of the 34 cases, in 17 of which the breast was the part affected. Tables are also given, in which the degree of relationship of the cancerous relative is shown, and also the proportion affected on the father's and on the mother's side. Out of the 34 cases, in six more than one relative was cancerous, and in one instance (the chief features of which are mentioned) no less than five relations suffered from cancer.

The existence of phthisis in different members of a cancerous family is also adverted to. This disease existed in 50 families out of 130. Similar tables to those before mentioned are given, in which the degree of kinship is exhibited; it being also noted whether the disease was on the father's or the mother's side.

The notes of the 172 post-mortem examinations are next analyzed. In the first place, a table is given, in which the seat of the primary cancer in each instance is exhibited. The cases are then arranged in the following groups: 1. Cancer of the breast. 2. Cancer of the uterus. 3. True cancer of other organs. 4. Epithelial cancer. A series of tables follows, in which the secondary cancers are enumerated, and the cases arranged as follows: *a*. The disease strictly local. *b*. Involving also the lymphatics of the part. *c*. Involving the lungs and other parts, the liver being unaffected. *d*. The liver cancerous, the lungs being free from this disease. *e*. Those cases in which there were tumours in distant parts of the body, but both the lungs and liver were free from the disease. Moreover, in each form of the affection, a list of the non-cancerous diseases found in the bodies of the cancer patients is appended.

The bearing of the foregoing facts on the mode in which cancer is disseminated throughout the body is next alluded to, three distinct modes of multiplication being recognized: 1st, the growth of tumors in the immediate neighborhood of the cancer; 2d, the development of cancer in the lymphatics of the parts; 3d, the formation of cancerous tumours in distant parts of the body.

In regard to the cachexia, it was noticed that this condition only became developed as the ulceration and sloughing extended, and could not be attributed to pre-existing changes in the condition of the blood of the patient. In nearly all instances, the patient died from the ordinary effects of ulceration, or from the interference with vital functions.

Remarks on the Epidemic of Diphtherite (or Hog-skin Angina.)

By O. D. PALMER, M. D., *Zelienople, Pa.*

[Translated from the *Gazette Hebdomadaire de Medecine et de Chirurgie* of July 15th, 1859, for the Boston Medical and Surgical Journal.]

Notwithstanding the positive opinions of some authors to the contrary, diphtherite is an affection still but little known. Whilst maintaining this position, it seems to me proper that those who have been called upon to observe it, should make known, not only what they have been able to see particular in the new epidemic, but also the comparative appreciation of the general facts, as they have been observed by themselves, or as they have been learned from others.

In the commencement of this epidemic, with my memory surcharged with the writings most recent and esteemed, and more especially with the original works of M. Bretonneau, I considered myself armed against it; all seeming to me simple and clear. The mode of propagation, contagion, progressive extension; the disease extending from the throat or nasal fossæ into the rest of the organism, at first wholly local, drawn to the exterior, and only affecting the whole system from the external to the internal parts; the therapeutic success, dependent on the energetic application of the wholly surgical means, that is, dependent on the hands of the physician —all was simple, and my only expectation was to have to follow the best models.

My hopes have been betrayed; the perfect image that I awaited, has discovered itself in a very different shape, as will appear from the picture that I am about to trace.

I have seen an affection raging among different populations, attacking at the same time individuals having no communication with each other, without regard to other diseases, with but few rare exceptions originating from an unknown influence, and seeming to choose its subjects indiscriminately. The disease begins like a severe eruptive fever, in the midst of a large retinue of general symptoms, with considerable tumefaction of the ganglions, even when the false membrane is hardly developed; commencing in the throat, to extend from one part to the nassal fossæ, and from another to the respiratory passages, and sometimes to the digestive apparatus; showing itself also in the auditory conduit, at the vulva, in the vagina, in cutaneous lesions; attacking various points of the organism, without relation to contiguity—the throat with the vulva, the throat with the bronchia, the larynx remaining sound; the throat, then the intestines. These coincidences, indicated by the symptoms, have not been justified by the opening of bodies; but in two cases of tracheotomy, I have been able to demonstrate the absence of false membrane in the trachea, whilst it existed in the bronchia, or was in the state of being formed. In a good number of instances the adventitious membrane has been detached without treatment, or with very little, and as quickly as when cauterization daily or even more frequently have been practiced. This is no hindrance to the re-formation of false membrane, in parts contiguous or remote, and these new attacks have taken place, both when the throat contained the

pseudo-membrane adhering, and when *this was completely free.* That is to say, we have observed an affection, originating more from epidemic influence than from contagion, marching, in the manner of the exanthematous fevers, from the circumference to the center, not always following the way of contiguity, in extending its characteristic products, little susceptible of being arrested in its progress by caustics, but sometimes yielding to the efforts of spontaneous reaction—an indication that we should endeavor to imitate, in furnishing the organism means of sustaining a frequently unequal contest.

All is linked together in the doctrine of M. Bretonneau. Generalizing the facts of incontestable contagion, he admits that in all circumstances the diphtheritic germ is deposited locally, as it is in syphilis. He forgets that in whatsoever part of the skin or mucous membrane the virus comes in contact, it is the throat, amygdalæ, and nasal fossæ, that produce, with some rare exceptions, the first vestiges of false membrane, belonging to this species of *angina.* It is different in this particular from syphilis, to which it assimilates, and which acts at first, and always on the part where it is applied. There is, then, in all cases, and especially in serious cases of diphtherite, a diseased action internally succeeding to the contagion (when it is caused by this), and subsequently producing a similar disease, as takes place in the eruptive diseases, variola, rubeola and scarlatina, which likewise appear insidiously, and without our being obliged to refer their origin to contagion. May it not be the same in this pseudo-membranous angina? I have offered sufficiently numerous examples before, and have remarked elsewhere, "its contagion is *possible;* it is not at all *necessary.*"

From the full conviction of the development of this disease *internally,* to that of its destruction, at once, by cauterization, is but a step; this step has been taken, and numerous successes are furnished in support of the doctrine. They have been shown, doubtless, in severe cases, but much more often when the cure has either been wholly spontaneous, or obtained by the mildest means. These successes have not been wanting to me, either, though I have confined my cauterizations to the *isthmus of the throat.*

It is, then, by figures, that it will be necessary to resolve this important question, and its solution is required by science. Whilst awaiting, may we not be permitted to adduce the greater success in tracheotomy, since surgeons no longer *cauterize* the trachea after the operation, against the utility of such a practice in the larynx.

With my own experience, and after an attentive perusal of the known facts, I think we are not far from the truth in considering this primarily a general disease, inclined to manifest itself upon the mucuous membrane in the same way that the eruptive fevers do upon the skin. Doubtless this view is less seductive, in a therapeutic point of view, than the preceding one; for were it established, we should be left unarmed against this, as we are against the eruptive fevers, all the phases of which we are obliged to submit to, without the beneficial interference of heroic means. But if this is the truth, we must accept it as it is.

Pathological anatomy, chemistry, the microscope, have not as yet afforded very great aid to the study of diphtherite. The first of these, in explaining the internal lesions caused by this disease, has only confirmed, in regard to the interior, what clinical observation had established, in the living, in the parts accessible to view. It has shown, also, the liquid state of the blood, the vascular congestions resulting from this state, and the mechanical asphyxia caused by the false membranes obstructing the air passages. It has examined, perhaps too negligently, the lymphatic system, which appears to play the most important part in this disease.

Chemical analysis and the lens, in ascertaining the fibrinous nature of the false membrane, have still not been able to distinguish it from the *pultaceous covering* that accompanies a pathological state very different from the pseudo-membranous angina.

The chemists and micrographers ought to give us correct examinations of the blood at different stages of the diphtherite. This would probably open the way to a knowledge of the morbid state that certainly precedes a primitive modification of this fluid, before it is essentially altered by the enormous amount of fibrine thrown upon the mucous membrane—a consecutive alteration, that explains so well the hæmorrhages and congestions, the debility so great and so slow to disappear, and those paralyses which hamper convalescence.

Abstract of a Lecture on the Classification and Geographical Distribution of the Mammalia. Delivered in the Senate House of the University of Cambridge, May 10th, 1859. By RICHARD OWEN, D.C.L., &c., &c.

The learned Professor expressed his sense of the honor which had been done to him by the appointment to the Sir Robert Reade's Lectureship,* and the pleasure it would afford him to give to the members of the University a brief account of some of the prominent features of one of the divisions of the animal kingdom. He had selected the subject of the Classification and Geographical Distribution of the Mammalia, because it afforded an opportunity of taking a general survey of one of the most interesting domains of nature in the short period allotted to a single lecture.

* The endowment for this lectureship was given to the University in 1524, by Sir Robert Reade, Lord Chief Justice of the Common Pleas in the reign of King Henry VIII. A statute approved by Her Majesty, by order in Council, April 6th, 1858, directs that the lecturer shall deliver one lecture in term time in every year. The lecturer is to be appointed by the Vice-Chancellor during the Lent Term in every year, and to deliver his lecture in the Senate House, on a day to be fixed by the Vice-Chancellor. The present Vice Chancellor, accordingly, appointed Professor Owen, being desirous that the office should be held for the first time under the new statute by one who would shed a lustre upon it, and who at the same time, is not a member of the University.

He detailed briefly the principles and peculiarities of the classifications which had been respectively formed by Aristotle, Ray, Linnæus, and Cuvier. The first of those naturalists had evinced a very extensive and correct knowledge of the mammalian group, by including the cetaceans in it, and by the manner in which he had divided it into the three great classes of BIPODA, TETRAPODA, and APODA. From the time of the publication of his remarkable treatise, a period of more than two thousand years elapsed without any advance in the subject; and nothing indicated more forcibly the decadence or dormant condition of the human intellect, during a great part of that period, than the dearth of new facts and generalizations in natural history. To Ray, a member of the University of Cambridge, was due the merit of again opening up this interesting field of knowledge, of adding many new facts, and especially of pointing out clearly the distinctions of class, order, genus, and species; but in his generalizations he was, in some points, inferior to his great predecessor, whose classification he in the main adopted. Cuvier had given a great impulse to the science; and, by dint of vast research and unusual capacity for generalization, had worked a far more complete and satisfactory classification than had hitherto been attained. His classification had been generally followed in the early part of this century; nevertheless, there were felt to be some defects in it, and the minds of anatomists had been preparing for some modification of it. It was the lecturer's good fortune to have the opportunity of examining many animals which had not before been dissected, especially those from Australia, which had been brought over to our Zoölogical Gardens; and he had been enabled to establish the separation of the marsupials and monotremes as a distinct class. Nevertheless, he did not feel quite satisfied, and had bestowed much labor for many years upon the investigation of the characters of the brain in the different classes of animals; and, two years ago, he felt himself strong enough to draw out a classification of mammals founded upon the differences in the characters of the brain. That organ consists, in mammals, of four parts—the cerebellum, the optic lobes, the cerebral hemispheres, and the olfactory lobes.

In the lowest order of mammals—the non-placentalia—which includes the monotremes and the marsupials, there is no connecting medium or commissure (*corpus callosum*) between the cerebral hemispheres; and these parts are very small. These animals, therefore, he names LYENCEPHALA, or loose-brained. He had paid particular attention to the habits and characters of these animals, to ascertain with what peculiarities the absence of so important a part of the nervous centre is associated; and he found that there is in them a remarkable want of *memory*. The keepers in the Zoölogical Gardens observe that these creatures do not become familiarized with them, or recognize them. And though, in external features, some of the non-placentals resemble certain of the members of the placental class, yet the following difference may usually be remarked: The member of the latter—a carniverous animal, perhaps—when put into his cage, will at first seek to discover means of escape, will try

every panel, and search every corner; but, having spent a day or two in this way, he gives up the search as useless, and resigns himself to the occupation of walking to and fro in his den. The lyencephalous animal, on the contrary, unable to profit by the experiences of former trials, continues over and over again to repeat the same fruitless efforts to liberate himself.

The metropolis of the marsupials is Australia; and the pouch, into which the young is conveyed immediately upon birth, to be protected and fed, serves as a sort of portable nursery, enabling the mother to carry her offspring about with her. This must be associated with the remarkable dearth of water which is often experienced in Australia; one or two, or even nine years, sometimes passing, during which there is scarcely any rain. In this time, the pools, and even the rivers, become dried up; and the animals must travel many miles in search of that necessary of life—water. Were they, under these circumstances, obliged to leave their young behind, these would perish ere their return.

As an evidence—one to his mind the most striking—of design in the work of creation, Professor Owen instanced the provision for the feeding of the young marsupial. While in its mother's pouch, it is too young and feeble to make any effort to provide for itself. The milk must be forced down its throat, and would find its way into the trachea, as well as into the œsophagus, were it not that, during the process of feeding, the larynx is carried forward to the back of the nostrils, so that the milk can pass safely down on each side of it while respiration goes on. There is a provision in the mother to propel the milk into the mouth of the young; and there is this provision in the young to secure the proper transit of the milk into the œsophagus. If, in the coincidence and adaptation of these provisions to one another, there is not design, where are we to look for it?

The next class of animals he calls Lissencephala; because in them the cerebral hemispheres, though larger than in the preceding class, and united by a transverse commissure, are quite smooth—that is, without convolutions. This includes the rodentia, bruta, insectivora, and cheiroptera. They are cosmopolitan, being found in all parts of the world, though a large number of them are natives of South America, and some are confined to that region. The instincts are commonly much developed in them.

Under the name Gyrencephala he classes the animals in which the increased amount of gray matter requires for its packing that the exterior of the cerebrum be thrown into convolutions or *gyri*. This part of the brain is also much larger than in the former classes. The cetacea, sirenia, toxodontia, prob scidia, terissodactyla, artiodactyla, carnivora, and quadrumana, are included in this class.

The Professor pointed out some of the chief distinguishing features of the several orders, particularly with reference to the locomotive organs and the teeth. He drew attention to the fact that, in animals where the numbers of the toes are even (as in the ruminants, where there are two; and in the hippopotamus, where there are four), the stomach is complicated in its structure, and the colon is simple;

moreover, the articular surface of the astragalus is divided into two equal, or nearly equal, parts; and the structure of the teeth is symmetrical: whereas in the animals, where the number of the toes is uneven (as in the horse, where there is one; in the rhinoceros, where there are three; and in the elephant, where there are five), the stomach is a simple bag; the colon is more complicated; the articular surface of the astragalus presents unequal facets, or only one; and the structure of the teeth is unsymmetrical. Further, in the even-toed animals, it is very curious that the horns are always in pairs, usually two; or, if more than two, there are four, two being placed behind the others: whereas, in the uneven-toed animals, there is rarely more than one horn, which is in the middle line; and if there be more than one, as in the two-horned rhinoceros, they are still not in pairs, but in the middle line, one behind the other. Thus some countenance is given to the Platonic idea of the prevalence of numbers.

The highest class, ARCHENCEPHALA, which comprises only man, is distinguished by the great development of the hinder lobes of the cerebrum; these quite covering the corpora quadrigemina and the cerebellum. The posterior horns of the lateral ventricles, and the hippocampus minor, are peculiar to man, not existing in any other animal. Coincident with this perfection of the brain, we find a corresponding perfection of the other organs, as evinced by the more complete manner in which particular parts are devoted to particular purposes. This is especially seen in the case of the foot, which, by the strength and conformation of its components, and by the construction of the great toe, is enabled to do the whole work of bearing and propelling the body, so that the upper pair of limbs are left free to minister to the intelligent will.

The Professor concluded by an eloquent appeal to his audience to set a proper value upon that marvellous mechanism with which they were gifted, and which was fitted to be, and which ought to be, the tabernacle of the Holy Spirit.—*British Medical Journal, May 21st*, 1859.

Medical Notes from the Continent.

We continue our extracts from *Dr. Mercer Adam's Medical Notes from the Continent*, published in the *Edinburgh Medical Journal*, by giving the remainder of the article on the University of Würzburg, which includes a sketch of the celebrated accoucheur, Scanzoni.

Scanzoni next demands our attention. He it was who attended the Empress of all the Russias at her last accouchement, and was presented with the munificent fee of about £5,000, perhaps the largest *honorarium* which any continental physician ever received. The *prestige* with which his favorable reception at the Russian Court invested him; his undoubted skill, and widely-spread fame, as an au-

thority in female diseases, have rendered him the most celebrated and popular of continental accouchers. Every summer crowds of the French, German, and Russian nobility and aristocracy flock to Würzburg to consult him; and the principal hotels there during the season are like so many fashionable hospitals, filled with his lady patients. I remember that I considered myself very fortunate in getting possession of the only vacant apartments in the *Kron-Prinz*, just as they were vacated by a *Gräfin*, or German Countess, who had been under Scanzoni's care. Nor is he only busily employed during the summer months; for when the *Kurzeit*, or season, is over at the Spas, when the pleasure seekers and invalids have left Baden-Baden, and when the gambling-rooms of Wiesbaden and Hombourg are deserted alike by the fools and blacklegs who had thronged them in summer, the little spas of Kissengen and Brückenau, in Bavaria, preserve their vitality, being constantly frequented by visitors, who desire to be in proximity to the great obstetric physician of Würzburgh. Scanzoni has earned his great reputation while still comparatively young. He is a man of forty, slightly above the average height, and with a slim, well-made figure. His complexion is fresh, and his long, light-brown hair, carefully brushed back from a large, well-developed brow, falls in negligent masses behind. He has a cheerful, open countenance, and a merry eye; his face generally wears a smile, and a touch of quiet humor lurks about the angles of his mouth. His manners are peculiarly affable, and all who have enjoyed the pleasure of his society must retain, as I do, the most delightful recollections of his friendly courtesy. Scanzoni's unprecedented success has not lost him to science. We all know how often this is the result of a man gaining the ear of the great public, and becoming what is called a "fashionable physician;" how often he ceases to investigate disease, or to contribute to medical literature as in days gone by; and how often the clink of golden guineas dulls his ear to the calls of science. There are among us, no doubt, many most honorable exceptions—men who scorn all fashionable quackery, and who, in the midst of an extensive and harrassing practice, still contrive to cultivate science and medical literature, with quite as much success as their less busily employed brethren. Hofrath Scanzoni is a man of this stamp, and he fully deserves his fame; for he continues to be as active and enthusiastic in the investigation of all that relates to obstetrics as he was in former days, when he was comparatively unknown.

The works of Scanzoni, like those of his colleague, Kölliker, are now so familiar to all scientific obstetricians—although singular to say, no English translation of them has yet appeared—that any special reference to their contents is quite unnecessary. His *Manual of Midwifery*, now in its third edition, is a most complete treatise on the subject, and his work on *Female Diseases* is eminently practical in all its details. He has recently commenced a periodical specially devoted to obstetrical science, which promises to be a very valuable addition to this department of professional literature. It is entitled *Contributions to Midwifery and Gynæcology*, and contains, not only

contributions from his own pen, but also from many other writers of note. In the third part, recently published, Scanzoni relates a most interesting case of death induced by passing carbonic acid gas into the uterine cavity. The reader is doubtless aware that, of late, carbonic acid has been extensively used, not only as a local anæsthetic of undoubted efficacy, but also as a means of exciting the muscular activity of the uterus, in the induction of premature labor. The unfortunate patient was a woman aged thirty, who had a large, painful, fleshy tumor, of bluish-red color, and as large as the fist, attached to the vulva; and who had also a disease of the cervix, and, what afterwards proved to be, a large dropsical cyst of the uterus. Before commencing an operation for her relief, a stream of carbonic acid, as an anæsthetic, was passed into the vaginal canal; but hardly had two or three cubic inches of the gas entered the cervix, when the patient screamed out, "The air is entering my abdomen, my head, and my neck!" Alarming symptoms immediately ensued; great rigidity of the whole body; labored respiration; small pulse, and coldness of the extremities. In spite of all the remedies applied, the patient sank, one and three quarter hours after the introduction of the gas into the vagina. Scanzoni considers that death may be accounted for in two ways: *firstly*, by supposing that the gas entered one of the large uterine vessels and occasioned a fatal result, just as sometimes happens, from the entrance of air into the veins in surgical operations; or *secondly*, by the hypothesis of a veritable intoxication, produced by the gas. He admits that objections may be raised against both of these views, but he considers that the first theory is more likely to be correct than the second. The first hypothesis seems opposed by the fact that, on the careful examination of the uterus, not a single injured or gaping vessel could be found, which could admit the gas into the circulation; and, moreover, it is worthy of remark, that death did not occur for an hour and three quarters after the introduction of the gas, whereas, on the entrance of air into the vains, the fatal result usually takes place very quickly—sometimes in a few minutes. Against the intoxication theory may be adduced the facts, that proportionably very large doses of carbonic acid may be brought into contact with the blood, through the medium of the respiratory and digestive passages, without any poisonous effects being produced; and further, that, in numerous instances, this gas has been passed for a long time into the vagina, without giving rise to any dangerous symptoms whatever.

As a clinical instructor, Scanzoni surpasses most obstetrical teachers in rendering his pupils adepts in correct diagnosis. I remember hearing him deliver a clinical lectnre on the differential diagnosis of fibroid pelvic tumors, from pregnancy, fibrous tumors and polypi of the uterus, which was quite a masterpiece for its lucidity and simplicity. He has large clinical wards for patients with female diseases allotted to his care in the Julius Spital; and he gives instruction in practical midwifery in the *Entbindungs-Anstalt*, or Lying-in Hospital, a handsome new building, near the Julius-Spital. This institution, which is principally supported by allowances from the government

exchequer, and also in part, by the fees of the students and midwives who attend it, is well worthy of the medical school of Würzburg. It is intended for the reception and care of poor women at their confinements; for the shelter and private delivery of pregnant women who wish their accouchements to be kept secret; and for affording a good school for the instruction of medical students and midwives in practical obstetricy. The very poor are, of course, received gratuitously, but nearly all the patients contribute something for their maintenance and treatment. The rates charged vary according to the accommodation afforded, etc,; and the patients are divided in three classes: the first pay 2s. 6d., the second 1s. 2d., and the third as low as 3d. a day. Patients of the latter class, however, in consideration of the low rate of board charged, are expected, if strong and well, to render assistance in the general household work of the establishment. The maximun length of residence allowed in the *Entbindungs-Anstalt* is fixed at six weeks, but exceptions are made in favor of poor women who are in ill health, and demand medical attention during pregnancy, and also in the case of rich patients who desire a refuge within its walls for a longer period. On the reception of a patient into the hospital, the following particulars are recorded in a book: Name, surname, age, and place of birth; date of admission; number of pregnancy—its beginning, its present stage; time of expected confinement; any personal peculiarities, etc., worthy of notice; and columns are further provided for the registration of the date of the discharge, and whether or not the mother was accompanied by her child. The institution contains about 130 beds, and about 50 are, on an average, constantly occupied. The number of berths averages about 350 annually. The whole of the interior is furnished with a view to elegance and comfort; and the system of ventilation throughout the building is quite unexceptionable. Around the hospital are neatly-laid-out gardens, which serve as airing-grounds for the patients. Each of the first-class patients is allotted a neat little room for herself, which is elegantly fitted up with furniture made of walnut wood, consisting of a bed, table, sofa, chest of drawers, and several chairs—with occasionally an extra bed for the attendant nurse. The second-class patients have also separate apartments, similarly fitted up, but with furniture of a plainer description. In each room a cosy little child's cot stands beside the bed of the mother. Patients of the third class sleep in dormitories, which are well lighted, and exceedingly clean and comfortable. In one part of the establishment, there is a suite of about six or eight apartments, and which is called the *Geheime-Abtheilung*, or secret department. This feature distinguishes many of the German Lying-in Hospitals—as we shall afterwards have occasion to mention when speaking of the Vienna hospitals—and it enables the victims of seduction and illicit love to conceal their shame from the open gaze of the world. Here, the young lady, who has "loved, not wisely, but too well," may retire from society before her disgrace becomes apparent—her friends believing meanwhile in some pleasing fiction, that she has gone on a tour

to visit England, or to enjoy the gayeties of Paris. Here she enters, seen by no human eye, save that of the hospital attendants, who are all trustworthy, and sworn to implicit secrecy; here she lives till her confinement is past—never called by her name, but merely designated by her number; and when that event is over she again passes out into the world, and perhaps talks of the celebrities she has seen in Pall Mall or Rotten Row, or of the fascinations and beauties of the Champs-Elysées. The object, in providing such facilities for the concealment of illegitimate births, has doubtless been the prevention of criminal abortion (a crime as heinous as murder in the eyes of the Roman Catholic Church) and infanticide; but the effect of these provisions on the public morals cannot be very good.

For the reception of puerperal women there are four excellent wards, with water-closets attached; and there are also sick-rooms for patients who have abnormal deviations from the ordinary process of recovery after labor. Each sick-chamber has a little kitchen annexed to it, for preparing cataplasms, cooking food, etc. There are lavatories in all the passages; and I was shown one or two large and cheerful work-rooms, where great numbers of the poorer patients were all busily employed—as is the custom with the German peasantry—spinning away with their "rock and wee pickle tow."

In the upper part of the *Anstalt* is a large hall or ampitheater, called the *Entbindungs-Saal*, or accouchement-room, wherein the patients of the third class are delivered by the students, under the direction of the professor or the assistant physician. Seats are arranged, in a circular form, round the room, for the accommodation of the students; and in the center of the space which they inclose stands an obstetrical bed, which is something quite unique. It resembles in general appearance the ordinary German beds, which are simply long and not very broad wooden boxes, raised on four legs, and having no posts or curtain-hangings of any kind. This bed, however, rests on a strong, central, circular piviot, which enables it to be turned round easily in every direction. It also admits of being separated, transversely through its centre, into two halves; and this is done when turning, or any instrumental interference, is necessary. The lower half being then withdrawn, and the patient placed in the lithotomy position, the operator enjoys great freedom of action in every direction. The bed is also furnished with two movable wooden handles, which can be shifted higher or lower for the convenience of the patient, and by grasping these she can have a firm support during the labor-pains. Whenever a patient is seized with labor-pains, the clinical students are specially summoned to attend at the *Entbindungs-Saal* and witness her delivery. One of their number is selected to conduct the case, under the superintendence of the professor or his assistants. It cannot be denied that there are many advantages connected with this mode of teaching clinical midwifery, but the publicity and exposure which it entails are attendant evils, that render it repugnant to British notions of propriety, and preclude the possibility of its importation into this country.

Professor Scanzoni kindly accompanied me through the whole of

the excellent museum attached to this hospital, and showed me his collection of valuable obstetric instruments. His new cephalotribe struck me as a very beautifully devised instrument, infinitely simpler in its construction, and easier in its working, than the cephalotribes of other physicians. In Germany, this instrument has completely superseded the perforator and crochet in craniotomy cases; and I feel quite convinced, from what I have seen of its use, that if British accoucheurs would only give it a fair trial, that it would soon come into general employment in this country also. Scanzoni s cephalotribe is not more difficult of application than the ordinary forceps; it is easily worked, and is devoid of all the dangers to the mother attendant on the employment of the old-fashioned crainotomy instruments. The museum contains a large selection of interesting anatomical preparations. Among them is a curious specimen of a uterus, with a rudimentary appendix on its left side, in which an ovum—which had descended from the right ovary, and had traveled thither through the fundus of the large uterine cavity—was developed into a fœtus of four or five months old. The mother died at this stage of her extra-uterine pregnancy, although she had before been thrice safely delivered of children, and had once aborted with twins. At the *post mortem* examination, the ruptured sac of the fœtal membranes was found in the appendix I have referred to, which constituted a true horn of the uterus. This horn or appendix was attached externally to the left fallopian tube and ovary, and on its internal or right side it was united to the fundus of the uterus by a band of connective tissue. A narrow passage perforated this connective tissue, which admitted of the passage of a probe, and constituted a true communication between the fundus and the appendix. No cicatrix was found in the left ovary; but in the ovarium of the right side there was a distinct corpus luteum, about six lines in length, which indicated the point from which the ovum came, which, after wandering through the whole of the uterus proper, found its way along the narrow passage into the abnormal horn, and was there developed into a fœtus. Probably no similar instance of the wanderings of an ovum in the human subject is upon record; although Bischoff, the embryologist, was aware of their occasionally traveling in this manner in the lower animals. The peculiar abnormality is also very uncommon. I believe that Rokitansky only knew of one similar case of a rudimentary appendix attached to a uterus.

The museum contains many fine specimens of the various deformities of the pelvis, and among them is a preparation of great interest, illustrating the curious anomaly, first described by Kiwisch, which is termed by Lambl, of Prague, Spondylolisthesis. This deformity consists in a dislocation forward of the fifth lumber vertebra and the upper segment of the sacrum into the hollow of the pelvis. This preparation has been minutely described and accurately figured by Dr. Lambl, in the last part of Scanzoni's *Beiträge*.

We have still much to say concerning other professors and teachers of the Würzburg school, but the length to which the present

paper has already run forbids me entering into details. Scherer, the professor of chemistry, is well known as one of the best organic chemists; Linhart, formerly teacher of surgery at Vienna, is an able clinical professor, a very expert operator, and author of a capital treatise on operative surgery. The oldest professor, the venerable Hofrath von Textor, lectures on surgical instruments, and their uses; the Hofrath, Dr. von Marcus, teaches psychology and history of medicine; and Professor Rienecker gives excellent lectures and clinical instruction on the diseases of children. Ophthalmology is taught by Professor von Welz; and comparative anatomy and microscopy by Professor Heinrick Müller. The latter physician is distinguished by his papers on the retina, and has made the finest preparations extant illustrative of its structure.

And now, in conclusion, I would say, very briefly, that I am not acquainted with any school of medicine which, taken all in all, offers more solid advantages to a hard-working student; and a few weeks could not be more profitably employed by any physician from this country, who is able to speak and understand German (for in Bavaria, even among educated men, the stock of English is rather scanty), than in attending the cliniques, and hearing the lectures of the distinguished men whom I have mentioned, in the delightful old city of Würzburg.

Quinia in Peritonitis.

The experiments made of late years by Legrouz, Monneret, Andral, Trousseau, and other celebrities connected with the French school, have proved, beyond a doubt, the beneficial influence of quinine in large doses in the treatment of acute rheumatism, and other diseases of a similar type. Recently this same medicine has been vaunted in combatting certain forms of peritoneal inflammation occurring in connection with the puerperal state, and more especially by M. Beau, who, during his official connection with the Cochin Hospital, employed it in an immense number of cases where that formidable disease prevailed in an epidemic form. So marked was the success which attended his experiments, that he ultimately arrived at the conclusion, that quinine in large and continued doses, if not a specific in that disease, is at least the most valuable, and at the same time most powerful curative agent we possess in its management and treatment. Entertaining such views in reference to the value of quinine in puerperal peritonitis, it was exceedingly natural that he should try the same remedy in a similar affection occurring apart from the puerperal state; and hence we find, that in the idiopathic form of peritonitis he has recourse to the same mode of treatment, and urges on his pupils its decided superiority over every other with which he is acquainted. In a disease of this kind, which, in spite of the most active and energetic measures we may adopt, most

generally pursues its fatal course with amazing rapidity, we are always disposed to accord a favorable reception to any theory, however novel and unsupported by facts it may be, provided only we be told that its practical application has been followed by merely partial success; and we are always most agreeably surprised when, with preconceived notions unfavorable to the theory, we find ourselves confronted with a single fact which, though it may not completely establish the new doctrine, at least enlists our sympathies in its favor. Such was the surprise which we experienced in reference to the quinine treatment recommended by M. Beau, when we witnessed, for the first time a fortnight ago, a genuine case of idiopathic peritonitis treated and cured by this medicine, to the entire exclusion of every other therapeutical measure. To those who have been taught in early life that inflammation of the peritoneal membrane demands, in the majority of instances, the abstraction of blood—if not generally, at least locally—until a powerful impression be made on the system, and that this heroic plan of treatment must be followed by the assiduous exhibition of calomel until the patient be brought under the influence of this powerful and dangerous mineral, the solemn declaration of a man of high authority and great experience, to the effect that such treatment is not only useless but positively pernicious, cannot be viewed with any other feeling than that of amazement; and yet, reluctant though they be to abandon a system which has been inculcated in their youth, and which they have been accustomed to regard as strictly orthodox, they must resign themselves to seeing it demolished by another diametrically its opposite.

As a sequel to the foregoing remarks, we cannot do better than place before your readers the following case, the details of which we extract from our Medical notes taken at the bedside of the patient. A girl, 24 years of age, was admitted into the service of M. Beau, at the Hôpital la Charité, and on examination the following symptoms were recognized. Over the lower part of the abdomen there were great pain and tenderness, which were increased on the slightest pressure; the pulse was small, hard and quick, averaging about 120 beats in the minute; the skin was hot, dry, and harsh; tongue furred; constant nausea, with occasional vomiting; constipation; the features were pinched, and the countenance indicated much anxiety; respiration harried; complexion muddy, and the conjunctiva slightly yellow. The patient lay on her back, with the legs flexed on the thighs. Her previous history showed that for some weeks prior to the invasion of the disease she had been in an indifferent state of health, which she attributed to an unusual amount of bodily fatigue to which she had been subjected. In the presence of these symptoms, M. Beau at once pronounced the case to be one of acute peritonitis. Treatment: an emetic, composed of ipecac. and tart antimon. was ordered, to be followed up by a purgative enema. The feeling of nausea having thus been removed, and the stomach prepared for the administration of the sulphate of quinine, this medicine was prescribed as follows: two grammes (equal to thirty grains) were ordered to be divided into three doses, one of which was to be

given every eighth hour, and a blister was applied to the lower part of the abdomen, over the spot where the pain and tenderness were greatest. After four or five doses of the quinine, its physiological effects, such as deafness, ringing in the ears, etc., began to manifest themselves, and consentaneous with these there was a manifest diminution of the original symptoms. The pulse from 120 was reduced to 110; the pain and tenderness of the abdomen were considerably subdued; the febrile symptoms, generally, were greatly modified, and the countenance became more placid. The quinine was ordered to be continued, together with the use of refreshing drinks, and on the fourth day of the treatment the pulse fell to 100, acompanied by corresponding improvement in all other respects.

In a week or ten days from the commencement of the treatment, the full effects of the quinine having been produced, that is to say, the original disease having been, as it were, overcome, the medicine was gradually diminished, and ultimately discontinued. The pulse has fallen regularly, and the patient is now convalescent. Now, in a case like the above, implying the undoubted existence of inflammatory action of a most important membrane, the indication, according to the notions generally entertained, would be abstraction of blood, if not from the arm, at least by the application of leeches over the seat of the disease; and we venture to say, that in a similar case such would be the practice adopted by a large proportion of medical men. But according to the theory of M. Beau, instead of curing the disease, the abstraction of a single drop of blood would only increase the evil, and ultimately lead to a fatal result. In peritonitis, and in the phlegmasiæ generally, the blood, according to Beau, is poor in red globules, and consequently rich in fibrin; in other words, the increase of the latter is in a direct ratio to the diminution of the former. It is not difficult, therefore, to understand his determined opposition to depletion, and other measures calculated to lower the vitality of the blood. He regards the excess of fibrin as the real pathological condition on which this disease depends; that is to say, he regards the fibrin as the phlogistic principle, and whatever tends to augment the fibrinous portion of the blood must of necessity increase the fever and feed the disease. Consonant with these views he considers anemia, which is always characterized by diminution of the red globules of the blood, as one of the principal predisposing causes of the phlegmasiæ; and when this condition of body exists, exposure to cold and wet, to sudden change of temperature, or to any of the other exciting causes of inflammation, may be followed by an attack of acute peritonitis. Quinine being the sheet anchor of M. Beau, as we have shown, in the treatment of this disease, it will not be out of place here to indicate some of the leading rules which he lays down in reference to the manner in which it should be employed, and on the rigid observance of which the success will depend. It is necessary that a decided effect be produced on the system at once, and hence the earlier the quinine is exhibited after the malady has declared itself the better. But in every case he deems it advisable to premise the first dose of quinine with an emetic; to be followed

up by a purgative enema. As soon as the stomach is prepared to retain the quinine, he gives the latter to the extent of eight grains every eighth hour, and this quantity of the salt must be continued for several days in succession. It is right, however, to observe that the dose must be proportioned to the sensibility of the patient; that is to say, it must be increased should the intoxication produced by it prove too feeble, and diminished in the event of its being too strong. M. Beau has never, in the course of his experience, had occasion to prescribe a larger dose than four grammes (60 grains) of the salt in the twenty-four hours. Even when the inflammation of the peritoneum is limited to one spot, and when the malady has been to a certain extent overcome, it becomes imperative towards the second or third day to increase the dose of the salt to a small extent, as the system becoming accustomed to it, the quinine in its original dose would not suffice to maintain the mastery over the disease. For the same reason the medicine must not be diminished too rapidly, nor discontinued too early. Beau states that he has seen cases in which, up to the eighteenth day of the disease, he could not suspend the medicine without such suspension being followed by a recurrence of the febrile symptoms. Should the stomach from excessive irritability reject the quinine (by no means an uncommon occurrence), it should again be administered in some other form, so that if one form does not suit another may. When, notwithstanding the form in which it is administered, the stomach obstinately refuses it, the quinine may be given in the form of enema, as experience has proved that its absorption readily takes place when given in this manner.—*Correspondent of the Med. Times and Gaz.*, July 2, 1859.

Nasal Polypus Removed by a new Forceps.

Mr. Gant stated, that having somewhat frequently had occasion to remove nasal polypi, he had experienced some difficulty, and even danger, in doing so with the ordinary serrated forceps. It was an unsurgical proceeding to attempt to detach a polypus from the nasal fossa by twisting its peduncle. Not to mention the acute pain of such an operation, it is also ineffectual. If the polypus be soft, as usual, it is apt to come away piecemeal, and require more than one operation for its removal, or should the polypus be harder than usual, we may accidentally bring away a portion of either spongy bone between which it is more commonly attached, or we may, perchance, injure the delicate septum narium. Surrounded, indeed, as a nasal polypus is by delicate bony structures, we can scarcely venture to wrench it away from its osseous attachments without some risk of injury thereto. This misadventure is followed by "carious disintegration" of the exposed bone, accompanied by a fetid and persistent discharge.

To meet these difficulties, Mr. Gant has recently invented a pair of forceps, which *cut* and hold at the same time. One edge of either

blade is finished off somewhat like that of an ordinary scissors; the other edge is broad and *rasped.* This combination of scissors and rasped forceps is a modification of the grape or flower scissors of the conservatories. The danger of hemorrhage, on which so much stress is laid in the books, as the main reason for twisting rather than cutting a nasal polypus, would seem to be an error. Very little hemorrhage attended the operation we witnessed. It would seem that the forceps in question sufficiently compresses the blood-vessels to arrest hemorrhage, and Mr. Gant particularly called attention to the fact, that operations with his instrument "were as bloodless as they were painless." Nor in his experience did nasal polypi so removed return.

PART THIRD.

BIBLIOGRAPHICAL NOTICES AND REVIEWS.

Elements of Medicine, a Compendious view of Pathology and Therapeutics; or, the History and Treatment of Diseases. By SAMUEL H. DICKSON, M.D., L.L.D., Professor of the Practice of Physic in Jefferson Medical College, Philadelphia; formerly Professor of the Institutes and Practice of Physic in the Medical College of the State of South Carolina, and of the Theory and Practice of Medicine in New York University. Second Edition Revised. Philadelphia: Blanchard & Lea, 1859; pp. 768.

Our readers are aware that the first edition of this work made its appearance in 1855—the one before us, therefore, is the *second* edition. In the preface the author states that he has revised this very thoroughly, so that it may be regarded as presenting, within a small compass, an outline of what is acceptable on the History and Treatment of diseases.

We have given this book, which is on the most important branch of Medical Science, a slight examination.

It emanates from the hand of a veteran practitioner and teacher, and who is at present the occupant of the Chair of the Practice of Physic in the Jefferson College, Philadelphia.

As might *a priori* have been expected, the book presents a very good digest of practical medicine. It is conservative, but not to a faulty extent, with reference to old and long tried principles; and

in regard to things new, there is a very fair degree of judgment exhibited.

What we have said, of course, relates to the work generally. There are some opinions expressed of which we do not, at present, see the propriety. Perhaps, however, a little time may set us straight.

Typhoid Fever—Speaking of this, now, to most practitioners, familiar disease, the author has several remarks that we will briefly notice.

He agrees with Wood, that the term *Enteric Fever*, is more significant than *Typhoid*. This looks like a small matter, but it may mislead. If the student gets the name *Enteric* in his mind, he will naturally suppose that the disease is one of the bowels—that the bowels are primarily and constantly affected. *Enteric* (from *enteron* an intestine) relates at once to the bowels; and applied to the fever under consideration, locates it in the bowels. Now, there is no evidence, at all conclusive, that typhoid fever has *any special* location. The evidence is just as strong that it has not—that it is purely *idiopathic;* that in the language of the older pathologists, with reference to a cognate disorder, "it has its seat every where and no-where." For fifteen years we have seen more or less of the complaint, and we may say that we have seen nothing to induce us to believe that structural lesions, of any kind, are necessary as elements of the "*pathos.*" Their existence, when present, has the relation of *effect*, rather than of cause; and it is this fact that explains their diversity, one epidemic having them mostly located in the head, another in the chest, another in the abdomen.

Broussais and Louis have made the impression that the disease is not only symptomatic in character, but due to structural lesions of the digestive tube. Audral, however, and others, have shown that such is not the case—that we have very many cases of what Louis would call the "*Typhoid Affection,*" or Broussais, Chronic Gastro enterit's, in which there is no lesion whatever in the bowels.

Such being the state of our knowledge with reference to *typhoid* fever, we do not see the propriety of changing its name to *Enteric Fever*—a name that implies not only that it is *symptomatic*, but that it is essentially one of the intestines. We like the term *typhoid* (from "*typhos,*" stupor, and "*eidos,*" like) the best. If it signifies but little, it is not likely to mislead.

Proper nomenclature can only be attained by consulting carefully every element. A term that expresses but an occasional one, or

one that although constant, is insignificant, will amount to but little in the advancement of our knowledge of disease.

The circumstances taken into consideration, under which typhoid fever originates, favor the hypothesis that it is idiopathic, primary, one not depending upon any other disease. Its commencement is often due to causes that operate so as to depress, or rather, perhaps, degrade, the two great functions, Innervation and Circulation. Instances of this character make their appearance in rural districts frequently, and in localities proverbially free from malaria. They are of such a character as to fill completely the idea we have of "spontaneous origin." Another class of cases can, without any trouble, be traced to "crowd poison," *ochlesis*. A poison is generated by persons being crowded together, or in the sick chamber, that infects most of those who are exposed to it for any length of time.

Whether, then, originating in either of these modes, the disease is a general one, and if one part of the organism more frequently than another is affected, it is the blood. If the complaint, therefore, is to be named from the locality most constantly implicated, why not adopt the name, *Blood Fever*.

Treatment.—We have said more than we intended on the Author's nomenclature, and shall have but a word or two on treatment which, after all, is the most important.

The Author takes his place among the "Jugulators" in the treatment. He believes that the disease can be "cut short" during its course. Hear him: "I believe it to be possible, not only to diminish the violence and danger of the symptoms in a great majority of cases, *but in many to shorten the course*."

Such are the views of physicians generally who have little or no experience. We have, however, seen no one up to this time, who has practiced in an epidemic of *typhoid* fever, who believes in such doctrine. Our own impressions are, that when typhoid fever is once fairly inaugurated, it cannot be shortened in its course, that we can about as easily *stop* a case of scarlatina or small-pox in the middle of its course, as a case of this fever. The disease, like small-pox, elaborates a poison, which will produce the same symptoms in another; and for this purpose a certain length of time is required. Palliation is practicable but not *jugulation*. An attempt at the latter often produces complications.

Blood letting in Typhoid fever.—This is one of the remedies proposed by the Author. He says: "If the brain be prominently threat-

ened and the pulse and strength permit, it may be well to take blood from the arm; but this is very rarely necessary or proper." It would puzzle almost any one to know to what extent the above recommendation is limited by the latter clause of the sentence. We had supposed that the doctrine had become general among pathologists and practitioners that general blood-letting is not only of no use, but decidedly injurious; that the indications for its use, one of which is mentioned in the above quotation by the Author, are fallacious; that the seeming engorgement, congestion, or inflammation, is more safely and efficiently controlled by other means—as mustard, fomentations, cold water, etc.

The microscope and crucible show the blood to be in a diseased state—its corpuscles broken to pieces, and its fibrine gone. In this condition it would seem to be feeble enough for its great work, without being any further crippled. The question, however, does not rest on theoretical considerations. The practical use of the remedy condems it. The acute cases of the disease, the very ones that it would seem ought to be benefitted by it, bear it the worst—at least such is our experience. Those who have been extensively engaged in actual conflict with the disease speak well of the sustaining plan of treatment. With Graves they agree in the "feeding plan," avoiding carefully every measure or drug calculated to waste strength.

"Should the disease resist these remedies and progress, or remain obstinate, I would not hesitate to resort to the mercurial treatment. Small doses of calomel combining it with very small amounts of ipecacuana, to determine to the skin, may be persisted in at moderate intervals, until the gums become spongy and the mouth is gently touched."

Such are the suggestions of the Author when his drugs for "stopping" the disease have proven ineffectual.

The mercurial practice, now obsolete in even malarious fevers where it was most efficient, we were surprised to see recommended in the protracted cases of typhoid. The getting up of the mercurial disease does not have the effect of superceding the typhoid. The latter progresses just as well after the "gums become spongy and the mouth gently touched," as before. In a word, the two diseases are not incompatible; and as a consequence, the effect of the practice recommended is to get two diseases on your hands instead of one.

We have no time for a further notice of this book. As we said in the commencement, on most points, it is fully up to the times. And we like very much the Author's style. On Typhoid fever, however, it certainly has the ring too much of "*Old Physic.*"

PART FOURTH.

EDITORIAL AND MISCELLANEOUS.

The Past—The Future.

The present, is the first number of the twelfth volume of our work. We commence this volume in the hope of being able to improve upon all former ones. The little experience we have had has taught us many things that are pleasant and valuable; and some that we would rather not have known.

Our acquaintance with medical men has been very much extended; and we may say that the more we know of them, the more we are satisfied that they constitute the most useful and intelligent class of community. They are the ballast of society. The other learned professions have been invaded and victimized to an alarming extent by the speculative epidemic that for a few years has distracted every department of society. Indeed, we can scarcely point now to a prominent man in Law or Divinity who is *compos mentis* on Medicine —"right on the goose." They have almost universally been made the prey of the nonsense of the age; and we need expect no more from them than from the rank and file of the community. Medical men, having had their minds occupied more with Natural Science, with realities, have acquired care and caution in all their intellectual movements. They believe only when the proper evidence is furnished, and they owe their high conservative influence to the fact, that they get to be, from their calling, superior judges of what is evidence.

We did not, however, sit down to write a panegyric on medical men. What we have said therefore will do on that subject for the present.

We are in the receipt of numerous letters from distinguished physicians expressing approbation of the course we have pursued in the past,

and hoping well for us in the future. For all such testimonials we feel thankful; they strengthen our hands for the work before us, and we hope never to be less deserving of them.

We shall in the future try to make the Journal more interesting in the way of original matter, and more thorough in reviews. To accomplish the former we need the co-operation of the profession. Medical men should, every where, recollect that they can make themselves useful by keeping a record of what is passing before them, and transmitting what of it is unusual or new to the Journals. In this way our stock of knowledge is increased, and the profession made efficient in the great objects for which it was instituted. Very much of the most valuable of our information has been thus accumulated. Jenner was but an humble practitioner when he made his great discovery; and peruvian bark, the most important drug ever known, was first brought to the attention of medical men by one not even a member of any learned organization. If, therefore, medical men engaged in actual daily conflict with disease will only preserve and transmit their observations, the original department of the Journals may be much improved. There is great and especial need for this in the Mississippi Valley. With reference to our knowledge of the diseases of this immense region, we are as yet in the formative stage. There is, if such a term be allowable, a pathological idiosyncracy here that needs investigation, and that no one can investigate thoroughly but the practitioner of the region. To the Gentile it is Greek. Who knows any thing of *Yellow* fever except those who have wrestled with it? And we may also ask, who knows any thing of the Malarious fevers of the west and south, as well as those who have battled with them for a life time.

Our reviews of books have not been as thorough as we could have desired. But standing between the Author and Publisher on one side, and the reader on the other, we have endeavored to be just. Most works that have passed through the press, within the last few years, have been meritorious, and as a consequence could be safely and properly recommended to the reading public. All, of course, are not alike necessary or useful—still there is scarcely a book that has made its appearance but what contains something good or new, and is well worth the publisher's price.

We must, however, except certain publications that of late have made their appearance. We allude to those especially of Forbes and Bigelow—(*Nature and Art in the Cure of Disease. Rational*

Medicine.) These works contain nothing new on *Pathology* or *Treatment.* They, in substance, the former more ingeniously than the latter, hash up the old "*Expectant*" system of Stahl, and propose it as an improvement of the nineteenth century. The amount of ability invested in their sophistry has given it no little currency.

The doctrine of these men, if heeded, will change the practitioner at once into a skeptic with reference to the drugs of the materia medica, and unsettle all his views of pathology. In the language of the ancients, it converts the avocation of the physician into a mere *Meditation on Death.* If drugs have no power, and diseases get well of themselves, what use is there of a physician? What of a Medical Profession? Forbes aspired to the office of reforming abuses, and confined to these only his labors would have been well received. He has, however, not shown himself capable of distinguishing between reformation and *destruction.* His reformation is destruction.

LETTING THE THING DOWN.—At the recent meeting of the American Medical Association, a committee was appointed to prepare a system of parliamentary rules, to be "as few in number, as concise and perspicuous as possible," for the government of the Association. The movement was based on the assumption that "parliamentary rules of order are numerous, complicated and sometimes obscure," and that "medical men, from the nature of their pursuits, can not be expected to be familiar with them."

As we look at this proposition, it tends, with the greatest certainty, to embarrass the Association, and belittle the profession.

Suppose the committee reports, and the Association adopts, an abbreviated and simplified manual. If it corresponds with others nothing is gained. If it differs from the standards ordinarily recognized, of which every physician has some, and many of them the most thorough understanding, interminable confusion is inevitable. This we regard as too evident to require argument.

That the movement is belittling in its tendency, we regard as equally evident. The ordinary manuals govern every description of deliberative bodies, legislative, political, reformatory, ecclesiastical, scientific, &c, &c. Complications are liable to arise in any of them, bringing into requisition any, and every thing, regarded as standard. The fault is not in the manuals, but in the circumstances

that necessitate them; and for us virtually to repudiate the ordinary methods of extricating ourselves, and do it by some short or simple method, looks like recognizing a state of baby-hood, with its indispensable milk and water aliment, that we are not willing to concede to the great American Medical Association. Not a bit of it. Let us have no letting down, but a *coming up*.

But we are not willing to grant the assumption on which the movement is based. True, we have many excellent men, and able physicians among us, who know nothing of parliamentary usages, and are not competent to preside over large bodies. But such is not *necessarily*, and from the nature of our occupations, *peculiarly* so. We ought to have our professional organizations, and convocations, just as other men—and to conduct them with just as much dignity and propriety, and with the fullest recognition of the ordinarily recognized standards of decorum, as the best and most intelligent of them. Besides, we are not only professional men but integral parts of society,—citizens,—and as such, there are many movements in which, if we would hold the place in the community which would seem to be assigned us, we are properly expected to participate, and have some knowledge of. Such occasions, and such as belong properly to our profession, give us just such opportunities, both in kind and degree, as most men have for learning parliamentary usages; and, accordingly, we are not able to see a single good reason, for any efforts at simplification, in adaptation to a state of either actual or assumed puerility.

We sincerely hope that the committee will never report; or if it does, that it will simply report in favor of the fullest recognition of the usages of the United States Senate, as embodied in our best manuals. Then if any gentleman should ever be called upon to preside over the deliberations of the association, who has not the requisite knowledge of such standards, he will have an excellent opportunity of making exhibition of his good sense by declining to act.

H.

Hebron Medical Society.—This organization has been in existence since January, 1858, and is doing a good work. It is not a county organization as ordinarily understood. It is located in the south part of Licking county, O., at the village of Hebron, while its membership is from the adjoining counties of Muskingum and Perry,

as well as that in which it is located. The only feature of its organization which is peculiar, is contained in the following by-law: "It hall be the duty of every member of this society to report, at each meeting, one or more cases of disease that has occurred under his supervision, and to read an essay on any medical theme when required by the President at the regular meetings, and on failure to comply with the above requisitions the delinquent shall be subjected to a fine of one dollar for each offence."

We are gratified to state our impression that this is an efficient organization, highly creditable to all concerned. The gentlemen engaged in it, recognize duties above those of the mere practitioner—they have raised to the conception that they are *men of science*—that science is to be *cultivated*—and that they have a share in the work. May they never weary in well doing.

For the present year Dr. Jas. Watkins is President, and our friend J. R. Black is Secretary.

We hope to be allowed the pleasure, from time to time, of transmitting contributions to the profession, from this source. This notice was designed for our last issue, but was mislaid.

H.

Funeral Obsequies.—Our friends of the Nashville *Journal* evince a laudable desire to preach funeral sermons, and perform appropriate obsequies for their expiring cotemporaries. After touching allusions to the demise of the *New Hampshire Journal*, and the *Philadelphia Medical and Surgical Journal*, they seem disposed to attend to our case, as indicated by the following:

"It would be a matter of satisfaction to us if the *Journals* would promptly let us know when they die, that we may record their decease, and join the mourning circle of their relatives. Are the *Ohio Medical and Surgical Journal* and the *Montreal Medical Chronicle* also dead? We are induced to ask for information on this point, as we have heard nothing of them for several months, and are anxious on their account."

Although our friends of the *Nashville Journal* have possibly found "matter of satisfaction" on account of our Montreal cotemporary, we are compelled to inform them that it is denied them, so far as the *Ohio Medical and Surgical Journal* is concerned. It is not dead,

nor even sleepeth; and, judging its future by its past, *it never will die!* What "satisfaction" do you realize in that, sirs?

The temporary "satisfaction" of our cotemporary originated in the omission to transfer the name of the *Nashville Journal* to a new book which our rapidly increasing subscription list brought into requisition. We regret the mistake. We should be sorry indeed to loose the fellowship of our vigorous friends. We like their overflowing good nature. In fact, we admire the thing itself, more than the taste that leads to special exhibitions of it in funeral sermons.

In return for their sympathy and tears, we will merely suggest to them, that having just proved, as we hope to their satisfaction, that we are to survive the wreck of matter, and the crash of worlds, we will hold ourselves in a state of readiness, whether it comes sooner or later, if they will merely inform us, to announce *their* departure, and demean ourselves accordingly. H.

The *Cincinnati Lancet* for July contains some wholesome strictures upon the American republication of the *London Lancet*. Attention is appropriately called to various nostrums, the advertisement of which in its pages "read all the world like the advertisements of the various nostrums in the daily papers." The insidious and deceptive advertisement of the American Dispensary of John King, M. D., is also appropriately shown up. We like all that very well.

On the first page of the advertising sheet of the same number of our cotemporary, however, is a flaming and well-executed advertisement of the "Union Drug Store, a union of the Materia Medica of all Schools and all Parties, No. 110 Third street, Cincinnati."

We observe, too, that the first number of the *Cleveland Gazette* contains an advertisement of the same establishment, although it is much less glaring. We suppose our contemporaries, either know more of the house of Merrill & Co. than we do, or that, by an oversight, they have been deceived. Let the character of the house be what it may, we hope that the *Lancet's* advertisement will be omitted, or modified so as to comport with its very just strictures upon the advertising department of the *London Lancet.* H.

Several original communications now on file, were not on hand in time for this issue and will appear in our next. We are greatly obliged to these contributors, and hope to add to their number.

H.

In connection with and since our last issue, we have forwarded bills, and in some cases letters, to our delinquent subscribers. In doing so, quite probably we have made some mistakes, which, of course, will be gladly corrected when discovered. We are much gratified to state that the *Journal* has a fine list of subscribers, who are prompt in forwarding their dues, to all of whom we hereby tender our gratitude. But it has also a large delinquent list, a list including many excellent men who allow their arrearages to accumulate, to a greater or less extent, forgetful that it is by the payment of the mites due from individuals, that every such enterprise is sustained. We hope that all such will understand that we *want our dues*. Let it be borne in mind, furthermore, that our terms are $2 00 per annum, in advance, and remit accordingly. H.

We have received a single number of a new Medical Journal—*The Cleveland Medical Gazette*—under the proprietorship of our friend, Prof. Gustav C. E. Weber, Professor of Surgery in the Cleveland Medical College. It is a monthly of 32 pages,

Within a few months the suspension of a number of Journals has been announced, and piteous appeals for help have gone up from others. The courage that would lead a man, under such circumstances, to project a new one, is worthy of commendation. We shall be gratified to see this Journal enlist new laborers and succeed. The profession of Ohio has done entirely too little in the way of cultivating indiginous products. We have done much to sustain and give character to the men and literature of other States and cities to the neglect of our own, and we are gratified with every thing tending to interest and enlist the many men of learning and ability that we have among us. H.

Belmont Medical Journal.—This is the "organ" of the Belmont Medical Society. Just think of it. Belmont county not only sustains a Medical Society, but a Medical Journal also. This we consider decidedly plucky. It is a monthly of 16 pages, the fourteenth number of which is before us. Nor is this all. Belmont county gives *this* Journal a large subscription list, almost all of which are promptly paying subscribers. Belmont does but little by way of contribution to the wind work of the profession, but in a quiet way, is doing a good work, worthy not only of commendation, but of imitation. H.

The Abolition of Craniotomy from Obstetric Practice. By Dr. TYLER SMITH, Obstetric Physician to St. Mary's Hospital. ('Medical Times and Gaz.,' 12th Feb. 1859.)

In this paper the author shows that craniotomy is resorted to in British practice about once in every 340 labors. The whole number of births in England and and Wales exceed 600,000 per annum; and if we apply the proportion of 1 in 340 to these figures, we get a total of about 1800 cases of craniotomy per annum. This is as though every year all the children born in London during rather more than one week were sacrificed; or as though all the children produced during the year in such a county as Westmoreland were born dead. The mortality to the mother from this operation is nearly 1 in 5, in British practice, which would give in England and Wales a maternal mortality of betweon 300 and 400 per annum. Craniotomy is performed about twice as often in British as in French practice, and four times as often in this country as it is in Germany. It is an obvious fact that every improvement which has ever been made in obstetrics has tended to restrict and diminish the cases and conditions in which the performance of craniotomy has been resorted to. It is the author's object to show that, with the proper and scientific use of all the means at our command, it may be laid down as a general rule, that craniotomy should not be performed in the case of a living fœtus after the period of viability has been reached. It is certain that, up to the present time, the measures which are the alternatives of craniotomy have never been carried out in practice to their full and legitimate extent. Turning was the first great obstetric operation which checked the voluntary destruction of the fœtus during labor. The objections to turning which some obstepists entertain depend on an almost superstitious fear of the uterus —a fear mainly owing to ignorance of the nature of the organ, and of the laws under which it acts. The dread of introducing the hand into the uterus has prevailed almost universally. But, apart from the danger of infection, the hand of the accoucheur, properly guided, can do no more harm in the uterus than any portion of the fœtus of equal bulk. Restrictions of the most absurd kind have been laid upon the operation, and it has come to be almost limited to arm presentations and cases of placenta prævia. On the Continent, turning is the recognized practice in cases of difficulty, where the head is above the brim, beyond the reach of the forceps, when the os uteri

is in such a state as to admit the hand, and when no serious distortion of the pelvis exists. The operation of turning in cases of moderate pelvic deformity was practised by Denman, but it was dealt with rather as an exception than a rule of practice, until the matter was taken up by Professor Simpson. No unprejudiced person can read Dr. Simpson's papers on this subject without coming to the conclusion that turning may be performed in cases of moderate pelvic distortion at the full term, with comparative safety to the mother, and with a reasonable chance of safety to the child. It is also shown to be applicable to cases of greater deformity, in combination with the induction of premature delivery. Nothing has ever occurred in the history of turning which has so strongly tended to enlarge its usefulness as the introduction of anæsthesia in obstetric practice. Under chloroform we can turn with comparative ease in cases of excessive sensibility of the os uteri and vagina, in arm cases in which the waters have been long expelled, and the uterus has closed upon the fœtus with spasmodic force. It renders turning practicable in cases of convulsions or maniacal excitement, and in all instances it makes the uterus comparatively quiescent, and thus averts the dangers depending on contraction and resistance during the operation. Turning is performed nearly three times as often in France and Germany as it is in this country. After turning, the next great step in opposition to craniotomy was the discovery of the forceps. Before the time of Chamberlain, whenever turning was impracticable, there was no resource in cases of difficulty except in craniotomy. But it may fairly be questioned whether the whole powers of this instrument have ever been fairly brought out, especially in this, the country in which it was produced. If we examine our standard works, we find more pains taken to show when this instrument is not to be used than when it may be. The cases in which the forceps may be used are those of moderate disproportion or distortion, whether the arrest is at the brim, in the cavity, or at the outlet of the pelvis; cases of arrest from failure of the labor pains, without any morbid condition of the parturient canal; cases of convulsions in which the os uteri is dilated, and the head sufficiently low to be within reach of the instrument; cases of occipito-posterior presentation, not otherwise admitting of rectification, and face presentations; cases of accidental hemorrhage; and cases of rupture of the uterus, in which no great recession of the head has taken place. It should

also be used at a comparatively early period in many of the cases which, if not assisted, run on to impaction from swelling of the fœtal head, and tumefaction of the soft parts of the mother. The outlet and middle straits of the pelvis are the limits within which the short forceps should be used; at the brim the long forceps is the proper instrument. The forceps is used more than twice as often in France and Germany as it is in this country. The last, and it may truly be said the greatest, opponent of craniotomy is the induction of premature labor. The largest single source of craniotomy is deformity of the pelvis. Now, it may be asserted, without the possibility of contradiction, that in this great mass of cases it would be right and practicable at once and forever to abolish craniotomy in the case of the living and viable fœtus. In all cases of known deformity, an examination should be made in the early or middle months of pregnancy, and the proper treatment of such cases should be the induction of abortion or of premature delivery. In cases of excessive distortion, where it would be altogether impossible for a viable fœtus to pass, abortion should be induced before the time of quickening. It would be quite impossible for intercourse and impregnation to take place in any case in which it would not also be possible to induce abortion with safety to the mother. In the very considerable number of cases of moderate distortion in which the diminished capacity impedes delivery at the full term, but would allow of the passage of a child at the seventh or eighth month, with the chance of living, the induction of premature labor is the only justifiable practice. Besides the great operations of turning, the forceps, and the induction of premature labor, there are other means by which, in special cases, the necessity of craniotomy may be superseded. One of the most simple is the rectification of occipito-posterior presentations. When the occiput descends towards the sacrum in the third and fourth positions, instead of turning towards the right or left acetabula, great difficulty is produced, particularly in first labors, or when the head is large. Recorded cases of craniotomy show that the want of this rectification, which is generally possible with the hand, the lever or the forceps, often leads to perforation. Cases of hydrocephalus in the fœtus are among the most difficult to deal with in an attempt to abolish craniotomy; but here we have the proposal of Dr. Simpson to tap the hydrocephalic head, and in this way reduce it so as to allow of delivery without the destruction of the fœtus. In actual occlusion or insuperable rigidity of the os uteri, incision is

a safer and better practice than craniotomy. While it is the object of the present paper to advocate the abolition of craniotomy in the case of the living and viable fœtus, there is undoubtedly a class of cases in which perforation may be practised beneficially—namely, in labors where the child has died during the course of parturition. No woman should be allowed to remain in difficult labor after the death of the child has been satisfactorily ascertained. Considering, then, the various means at our disposal in the way of preventing the necessity for craniotomy, the author unhesitatingly expresses his conviction that, as a rule of practice, craniotomy in the case of the living and viable fœtus should be abolished; and he believes that if all the resources of obstetrics in the way of prevention, management, and alternative treatment were properly wielded, the necessity for the operation would not arise.

Dilatation Treatment of Obstructions of the Nasal Duct.—The plan of slitting up the lachrymal canal in order to gain access to the sac and nasal duct, as first practised by Mr. Bowman, is now very frequently followed in the out-patients' room at Moorfields, and with most satisfactory results. Formerly, in order to allow of catheterisation of the nasal duct, an incision had to be made into the sac, and risk was run that a fistula might remain. Besides this, it was a painful and very troublesome procedure, very disfiguring to the patient as long as the fistula remained open, and of course always leaving a permanent scar. The new plan is exceedingly simple, and avoids all these inconveniences. The lachrymal duct having been freely slit up on its conjunctival aspect, the introduction of a probe of any desirable size into the sac is quite easy, and when there, by elevating the handle, the nasal canal is readily entered. The slit-up duct remains permanently open, but without either disfiguring or inconveniencing the patient, and the surgeon may repeat the use of the probe at intervals for as long as may be necessary. We have seen several very threatening cases of lachrymal abscess wholly cured after two or three dilatations, but in a general way so few do not suffice. The intervals allowed should be from four days to a week, and the probe used should on each occasion be allowed to remain in for half an hour or so. The principle of cure is precisely similar to that of strictures of the urethra by the bougie.—*Med. Times and Gazette, July* 19, 1858, *p.* 630.

Statistics of Tracheotomy.

The Statistics of the operations of tracheotomy performed during a number of years at the *Hôpital des Enfans* at Paris, where the effects can be observed upon an extended scale, must always be interesting and valuable. In former years we have frequently entered into practical details on the subject. We now quote from the *Journnl of Practical Medicine and Surgery* the following statistics relative to the operations of tracheotomy performed during the eight years just elapsed.

The following is the list of these operations from 1850 through 1857, with the number of cures obtained:

1850—20	operations.....	6	recoveries.
1851—31	"	12	"
1852—59	"	11	"
1853—61	"	7	"
1854—45	"	11	"
1855—48	"	10	"
1856—55	"	14	"
1857—71	"	15	"
Total, 390		86	

It will be seen by the above table, that the proportion of recoveries, although very unequal in the several years, presents a very similar general average; that is from 1 in 4 to 1 in 5 of the whole number operated on yearly. It should be mentioned that the majority of the children operated on were in the last stage of croup, and consequently in imminent danger of death.

M. Guersant, in whose wards this estimate was prepared, gives the following summary of the indications for end against tracheotomy, based upon the age of the children, the existing complications, &c.

Age is an important element to be considered. Amongst the cases which compose the above table, there is one of a child 18 months old who died with convulsions during the tracheotomy. M. Chaillon, the author of the article cited by us from the *Journal of Practical Medicine and Surgery*, states that he saw on the 7th of January last, a little girl of two and a half years die during the operation, notwithstanding the well-known skill of the surgeon. He had also seen a similar case in private practice—the patient being also a girl less than three years old.

Nevertheless, whilst the peculiar difficulties of tracheotomy in subjects under the age of two years are admitted—difficulties ascribable to the restricted relations and volume of the parts at that age; to the dangers of a minute, long and delicate dissection; and especially to the small size and mobility of the trachea, which often allow of the insertion of the tube only with extreme difficulty —M. Guersant does not consider the youth of the patient an absolute contra-indication to tracheotomy.

The same is true as regards pneumonia, when it complicates pseudo-membranous croup. For a long time, says M. Chaillon, the existence of this complication was thought sufficient wholy to contra-indicate tracheotomy. At present, M. Guersant adopts the opposite opinion; and he has become convinced that, establishing respiration by an artificial track, he has favored the resolution of the pneumonia. He admits that one decided contra-indication to opening the trachea in croup—and that is, diphtheritic infection, or general diphtheritis. When a child whose vocal chords have been invaded by false membranes, exhibits at the same time similar morbid products in the nose, the ears or upon the skin; when there are attacks of epistaxis and every sign of extreme debility—tracheotomy will be useless; the child will invariably die.

M. Guersant does not, moreover, consider the extremest degree of asphyxia an insurmountable obstacle to the success of the operation, provided the condition is permanent, and has continued for at least an hour with a persistent character.

Slow and continued asphyxia is indeed, the very state which is the chief indication for tracheotomy, according to M. Guersant. It is, then, the only thing to be done—the re-establishment of respiration being that alone which can keep the child alive.

There is a sort of asphyxia which does not so imperatively call for the operation—viz: the intermittent form. M. Guersant has seen children making violent efforts to breathe and seemingly about to die instantly; false membrane having been discharged, the nature of the disease was certain. Nothwithstanding the friends having opposed the opperation deemed necessary by the surgeon, the usual means were employed—such as emetics, calomel, alum and chlorate of potash—and the patients have recovered. But with the exception of these rare instances and of the far more common cases of general diphteritis, M. Guersant thinks that as a general principle,

tracheotomy is distinctly indicated whenever there is continued and increasing embarrassment of the respiration.—*Gazette des Hopitaux*, and *Boston Med. and Surg. Journal.*

Inversion of the Body for the Relief of the Symptoms produced by the Passage of a Renal Calculus along the Ureter.—Professor Simpson exhibited at the meeting of the Medico-Chirurgical Society of Edinburgh, a small oblong renal calculus, from a patient who had passed them at different times, and always suffered terribly during their transit from the kidney to the bladder. This patient had been now twice relieved of the agonising symptoms accompanying the passage of the calculus by inversion of the body. Professor Simpson had subjected her to this treatment in consequence of his belief that the passing calculus, falling down into, and becoming impacted in the ureter, acted at its point of arrestment as a pea-valve, and by its accummulating the urine above, or in the pelvis of the kidney and higher portion of the ureter, led to the accompanying distress by the morbid distension of these portions of the urinary ducts. When the body was inverted, and the affected side manipulated, the calculus probably fell backwards, and consequently upward, by its own gravity. At all events, whatever be the explanation, the practice in this and in one other case had immediately relieved the patient. He had seen partial relief from changed position in one case also of gall-stones. Position was a more important therapeutical agent than was generally supposed, not only in medicine, but also in surgery and therapeutics.—*Edinburgh Medical Journal, July*, 1858, *p.* 76.

The British Medical Association.—The twenty-seventh annual meeting of the British Medical Association took place at Liverpool on the 27th, 28th, and 29th of July. The description of it as published in the London journals reads very much like the descriptions of the meetings of our own American Medical Association. We notice, however, this marked difference. Instead of Reports from Standing Committees and National Reports on Health, often read by title merely, or at most a short abstract of them given, and

then referred to the Committee on Publications, as with us, the meeting of the British Association was more like a meeting of one of our State Medical Associations. Voluntary reports of cases, either written or oral, were made, and discussed in open meeting. There were a few committees on special subjects, whose reports were read before being referred. The association censured the Edinburgh College of Physicians for certain irregularities in granting their license to a homœophathist, and a resolution was offered, but subsequently withdrawn, censuring the same college for offering their license in consideration of "a money payment," to any one having any Medical or Surgical practice whatsoever.

The members breakfasted, dined and "lunched" together, and were entertained by the Mayor, after the most approved American style, though we see no mention made of reunions at the houses of resident members, in the evenings so pleasant a part of the meetings of our own Association. There was also an excursion "up and down the river in the Jackal." We hardly expected to find so much similarity in the proceedings of these two august bodies.

The next meeting was appointed to be held at Torquay, and Dr. Radclyffe Hall was elected president. At the meeting in Liverpool, about two hundred members were present, while only about one hundred members sat down to the Mayor's breakfast. Such an occasion with us, usually calls out the full strength of the convention!

We are sorry to learn that the Association is kept in perpetual difficulty by the expenditure on the *Journal*, (its "Transactions.") The Association is in debt to the unpleasant tune of $10,000, and the inability to discharge this debt prevents its "incurring any expense in scientific inquiries, or in the publication of such volumes of transactions as might be looked for from so numerous and intelligent a body of workers."—*Phila. Reporter.*

Concave Knives in Flap Operations.—Geo. Allerton, Esq., M. R. C. S., makes a good suggestion to the *Lancet* of July 23d, in regard to the form of the knife to be used in flap operations, especially in cases where the limb is very fleshy, or where the cellular tissue is much infiltrated. In such cases the flaps are often so bulging and bulky as to prevent a nice adaptation of their surfaces, and suppuration and sloughing occur, which not unfrequently terminate in death.

Two operations have been proposed to meet this difficulty, viz: that of Mr. Luke, who recommends making the under flap first, and that of Mr. Erichsen, of making skin flaps with the circular incision of the muscles. Mr. Atherton thinks, however, that both practices may be avoided by the use of the concave knife:

"The proper curve to give to such a knife must be determined by experience, but I should think that a curve having a radius of thirteen or fourteen inches would suffice, the blade being in other respects like the ordinary double edged flap knife, with a blade about ten inches long in the cutting part. The handle and the blade should take the same sweep, the curve, of course, being on the flat surface. To use such a knife, it would be necessary to transfix the limb, taking a good sweep round the bone. The point once fairly through, thrust it onward and forward from point to heel, keeping its convexity well down in the muscles; then draw it back from heel to point in a corresponding direction, and finish the flap by cutting out. The best mode of using such a knife would, however, soon suggest itself to practical men, and I think its advantages would be great in some cases."

Dust Floating in the Air.—M. Pouchet finds that the dust floating in the air contains the detritus of the mineral constituents of the globe, atoms of animals and plants, and the finest debris of all the matters we make use of. But one item he especially points out, viz, *wheat starch*, which is invariably found in the dust whether old or recent. Surprised at the quantity of it present among the ærial corpuscles, M. Pouchet investigated the dust of all ages and of every locality, and everywhere he found this wheat starch presented. "I have found the starch in the most inaccessible corners of old Gothic churches, mixed with dust blackened by six or eight centuries of existence. I have found it in the palaces and caves of the Thebiad, where it may have dated from the time of the Pharaohs? I have found it in the tympanic cavity of the tympanum of a mummified dog, which I had found in a subterranean temple of Upper Egypt. In all countries, in a word, where wheat forms the staple of food, starch always penetrates into the dust, and is met with in greater or less quantities. Hence therefore, the *corpuscles* of which we have heard so much, are granules of starch and silica.

Twice only in a thousand experiments has M. Pouchet observed the large ova of infusoria in the atmospheric dust.

THE DIFFERENTIAL DIAGNOSIS OF OVARIAN DROPSY AND ASCITES.—No fewer than four cases have recently come under our notice in which patients suffering from ovarian dropsy had been subjected to prolonged diuretic and mercurial medication, in the belief that the disease was hepatic ascites. In one case, a short time ago, in a large metropolitan hospital, the reverse mistake was made, and the peritoneal cavity injected with iodine, in the hope of obliterating an ovarian cyst, which, as the autopsy a few days afterwards proved, did not exist. Rumor states that one or two other accidents of the same kind have occurred since the iodine injection plan came into vogue, but we are not in a position to substantiate them. Facts like these prove that the differential diagnosis between these two affections is either not so generally understood as it ought to be, or else that it is a matter of extreme difficulty. Now, there is one sign which hitherto we have never found to fail, but which is, we believe, as compared with its value, but little known. In more than one work on the diseases of women we find no mention of this symptom, although in extreme cases it is the only one which is available. The sign referred to is percussion of the lumbo-lateral region. If in a case of ascites in which the distension is so great that the hydrostatic line of level in front is not changed by posture—and it must be remembered that only in ovarian cases in which the cyst is so large as to simulate this extreme condition ought any difficulty to occur—if, in such a case, the patient be made to sit up in bed, and the loins be percussed, it will be found that the note is the same (usually dull) on both sides. If an ovarian case, no matter how great the distension, be treated in the same way, one loin will be found to be clear, and the other quite dull. The explanation is obvious; in ascites, the air-containing coils of gut float as far forwards as their mesenteric attachment will permit, while in the case of an ovarian cyst, they are pushed over to the healthy side. It is not easy to conceive any condition of things, excepting entire exclusion of air from the whole tract of intestines, which could diminish the trustworthiness of this symptom. It indicates also, with unfailing accuracy, on which side the ovarian cyst, if it exist, has originated.—*Med. Times and Gazette, June 5, 1858, p. 574.*

XUM

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